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CURRENT
STUDIES
ON
THE VALUE
OF CHILDREN

Two are not enough: the value of children to Javanese and Sundanese parents

Russell K. Darroch,
Paul A. Meyer,
and Masri Singarimbun

East-West Center
Honolulu, Hawaii

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PREFACE

This paper reports the findings of the Indonesian Value of Children Study, which was part of the second phase of the cross-national Value of Children (VOC) Project. Information on all the country studies in the project, their investigators, and their sources of funding is given in the editor's foreword to the first report in this series (Paper 60-A). The project received generous funding support from the Rockefeller Foundation.

We express our gratitude to the other investigators in the project, to the institutions that have supported our work (the Rockefeller Foundation, Gadjah Mada University, Padjadjaran State University, the East-West Center, and the Australian National University), and to our many colleagues and assistants who aided us in all phases of the study. In particular we wish to acknowledge the special contributions and support of the following individuals: Dr. Albert Nyberg (Rockefeller Foundation); the late Prof. Anwas Adiwilaga, Drs. Urip Suwarna, Drs. Hizbut Tauchid, and Drs. Djudju Djuariah Utja (Padjadjaran State University); Drs. Djamasri Adenan, Drs. Kasto, Dr. Valerie Hull, Drs. Laksono, Dr. Chris Manning, Mrs. Irawati Singarimbun, Drs. Sudjali, Drs. Sukarsih, and Drs. Sumitro (Gadjah Mada University); Prof. John C. Caldwell, Prof. Cecil Gibb, Mrs. Erica Fisher, and Mr. Rick Pickering (Australian National University). We also wish to thank the Indonesian Academy of Sciences for granting the permission to undertake this research project.

Finally we thank our respondents for their time, interest, and hospitality. We hope that for them, and their children, the information they supplied and ideas they inspired will make a useful contribution to improving the daily lives of Sundanese and Javanese alike.

Canberra, September 1980

R.K.D.
P.A.M.
M.S.

ABSTRACT The aim of this study was to collect information on the positive and negative aspects (values) of having children as perceived by 1,001 Sundanese and 1,031 Javanese currently married women who were living with their husbands and were between 15 and 40 years of age. Husbands of half of the women in each culture group were also interviewed. Structured interviews were used to collect basic sociodemographic information, data on number and relationship of children in the household, family planning attitudes and practices of respondents, awareness of population issues, family size and composition, and child loss. The primary focus of the study was on the perceived advantages and disadvantages of children, ages at which children cost the most, and qualities desired in children.

In general, Javanese respondents placed more emphasis on instrumental advantages of children and Sundanese on the psychosocial advantages; women placed greater emphasis on instrumental values than men. Javanese were more likely than Sundanese to view the primary advantage of children as assistance (particularly financial assistance) in old age; but in neither sample group was the expectation of assistance substantial, only about a third expecting "a great deal" of help. Both culture groups valued daughters for their help around the house. Psychosocial advantages were more varied than instrumental ones but accounted for a significant proportion of responses. Despite a lack of strong sex preferences, boys were seen as more valuable than girls for family descent concerns. Respondents strongly emphasized the idea that children provide love and companionship as well as various kinds of stimulation and happiness. Qualities desired in children were obedience, "good" character, and willingness to care for parents in their old age; expectations of old-age care were stronger among Sundanese than among Javanese respondents.

On the negative side, children were seen as entailing substantial financial costs, in particular education and health costs. For most respondents the emotional costs of children were major disadvantages; these included worries about children's health and the possibility that they might die, the trouble and bother of childrearing, and worries about the children's future. On the other hand, respondents placed relatively little emphasis on opportunity costs, and there was virtually no concern about overpopulation as a consequence of having children.

Three special topics are also addressed in the report. One concerns *attitudes toward family planning. The data show virtually universal knowledge of contraception but less prevalent practice, with about a third of respondent couples practicing some form at the time of the survey. Approval of contraception was conditional; few approved of it to delay the birth of a first child, but larger proportions approved of it to space births and terminate childbearing. Concern about overpopulation appears to have played a minimal role in these attitudes. Media exposure, education, and parity proved to be the major predictors of family planning attitudes, but the weighting depends on the analysis selected. The second major topic is the experience of child loss. Rural respondents were more likely than urban to have experienced loss, and Sundanese were more at risk than Javanese, though no clear basis for the latter difference is discernible in the data. As expected, older, higher parity women were more likely than others to have lost children, but in all age and parity groups the levels of loss were substantial. Few strong patterns emerge between loss experience and perceived advantages or disadvantages of children. Interesting patterns exist, however, and are discussed. The third special topic concerns desired and ideal family sizes. Using various measures, we found desired and ideal family sizes to be in the range of three to five children, with between 60 and 70 percent of respondents preferring such a family size. Preference for fewer than three children was slight and tended to reflect actual fertility experience of older women rather than intent on the part of young respondents. Women married less than five years were most likely to state preferences for three and four children.*

The prospects for a two-child norm among Sundanese and Javanese are discussed and, in view of the findings presented, judged to be poor in the foreseeable future. Particular concerns for policy center around the evidence that social and emotional values ascribed to children are substantial and entrenched. Furthermore, child mortality appears still to play a major role in the perceptions of couples when they consider not only the planning of their families but also the advantages and costs of children. Public awareness of population growth as a problem seems minimal. Finally, the need for a variety of research strategies and coordination with national planning is discussed.

Indonesia is the world's third largest developing country after China and India, and like those two countries it has a moderate (albeit declining) rate of population growth coupled with only modest recent advances in the social and economic spheres (Mauldin and Berelson, 1978). Geographically, Indonesia comprises an archipelago stretching about 5,000 kilometers along the Equator. It includes many diverse ethnic and linguistic groups whose main common characteristic prior to World War II was colonial domination by the Netherlands. Since Independence the national government has struggled against great obstacles to unify the country politically and economically. Development efforts have identified excessive population growth and maldistribution of the population as national problems, and programs have evolved to overcome these.

The island of Java sits in the center of Indonesia, not only geographically and administratively but also by virtue of the sheer size of its population: 85 million people (out of the 1976 estimate of 135 million nationwide) are crowded into its area of 132,000 sq. kms. The resulting overall density of nearly 650 persons per sq. km., one of the highest in the world, is due not only to the presence of large urban areas, but also to densities in some rural districts of the island well in excess of this figure. The adaptations of the residents of such areas have been described as "agricultural involution" in a classic study by C. Geertz (1963). Events of more recent times have caused some changes in the conditions of "shared poverty" delineated by Geertz; but for the vast majority of the people of Java, urban and rural, the essential facts remain unchanged. The thin line between having just enough to survive and support one's family, and having to do without some necessities of life, is all too apparent.

Despite the crowded conditions and meager existences of the people of Java, there is diversity on the island. Geographically, ethnically, and politically Java can be divided into three areas roughly equal in size and population: West Java, including the national capital of Jakarta; Central Java, including the special territory of Yogyakarta; and East Java, which incorporates the island of Madura. Except for the residents of Jakarta, who come from all parts of the country, a majority of the inhabitants of West Java are Sundanese. The Madurese occupy their home island and parts of East Java, particularly along its north coast. Central Java and the southern parts of East Java are the homelands of the Javanese ethnic group. The three ethnic groups are distinguished from each other primarily by language; although related, their languages are mutually unintelligible. Other differences appear to be more of degree than of kind. For example, among the Javanese interpersonal relationships and speech patterns are hierarchical, but so are they to a lesser degree among the other two groups. Islam is the main religion of all three, but strict adherence to religious rituals—observing daily prayers and the fasting month, and avoiding pork—is less prevalent among the Javanese (Peacock, 1973:94–101). Perhaps the greatest difference between the groups is ecological: The highest population densities are found among the Javanese, who occupy most parts of the island suited for intense cultivation of wet rice (H. Geertz, 1963:41). The Sundanese are also primarily wet-rice farmers, but their area is more mountainous and thus less supportive of high densities. The island of Madura and parts of East Java have a much drier climate than West or Central Java, and this also limits their agricultural practices and population densities.

The growth of population on Java has not followed the pattern, considered typical of less developed areas of the world, of recent high rates due to lowered mortality, which in turn resulted from the introduction of political stability, improved food supplies, and improved public hygiene accompanying European penetration. Growth rates have been in the past and remain today rather moderate by contemporary standards: between 1 and 2 percent per annum. At times, of course, catastrophic events have caused them to decrease markedly, the most recent being World War II, when growth rates fluctuated around zero owing to increased mortality; but the general trend for the past few centuries has been steady, moderate growth. Hull et al. (1977:4) have estimated that at the turn of the century there were just under 30 million inhabitants, or about a third of the present population eight decades later.

Although early observers recognized the importance placed on children as sources of wealth for parents in Java (H. Geertz, 1961; White, 1976:71 ff.), actual research on the value of children in the family and community has been conducted in Java only in the last few years. Studies by T. Hull (1975), White (1976), and Sugito (1976) focusing on single Javanese communities have gathered data on the measurable contributions of children to the family income and on the financial outlays entailed in bearing and raising children. Saefullah (1979) investigated the attitudes of parents concerning childbearing in a Sundanese tea-estate community. The Value of Children Study described here also gathered information through interviews with parents on their attitudes toward various aspects of bearing and raising children, but was not limited to a specific community.

The primary aims of the study were fourfold. First, we determined that baseline data on attitudes and perceptions of the value of children in an Indonesian context were needed. Second, the data collected were expected to contribute to the larger, cross-national project on the Value of Children, even though the study could not feasibly be conducted as a nationally representative sample. Third, comparisons could be made between several of the distinct cultural groups in Indonesia who may have differing perceptions of the benefits and costs of children. Finally, particular aspects of social patterns in Indonesia that might affect fertility and family planning behavior—lack of family name, high population density, widespread poverty, relatively high infant mortality—could be examined. Because of these aims, and because of logistical considerations, we decided to restrict the study to Java and to an examination of the two largest ethnic groups of the country, the Sundanese and Javanese.

Subsequent sections of this report cover the methods of the study, the major findings, a discussion of several particular variables in some detail, and the main implications of the study. The first of these sections gives more information on procedures followed and the characteristics of the resulting sample than would otherwise be considered necessary in a summary report such as this, but we decided to include these details here because few studies of this nature have been published about Indonesia. The section on major findings is subdivided according to seven identified "dimensions" of the value of children explored in the study, with an eighth subsection summarizing rural-urban, husband-wife, and Sundanese-Javanese contrasts. Special topics covered in the fourth section are the relationships between attitudes toward having additional children and attitudes toward family planning, the effects of child loss on the value of children, and differences in desired family sizes. The final section speculates on the prospects for a two-child family norm in Indonesia and outlines the research needed to gain further understanding of this aspect of population change in Indonesia.

METHOD AND SAMPLE

Sample design

Because a primary aim of the study was to make comparisons between the Sundanese and Javanese cultural groups, equal-size samples of 1,000 households each were selected from both West Java (the Sundanese culture area) and Central Java (the Javanese heartland). The sample within each cultural area was again equally divided into two geographic areas of 500 households each. Within each geographic area, 20 percent of the households were selected from the urban center and 80 percent from the rural hinterland. In West Java, the urban areas selected were Bandung municipality and the city of Tasikmalaya; the rural areas were the regencies of Bandung and Tasikmalaya. In Central Java, the urban areas chosen were Solo (Surakarta) and Salatiga; their respective rural areas were not defined by regency boundaries but were the subdistricts that comprised the natural hinterland for each city (see Map). These four areas have different population sizes (Table 1) but are treated with equal weight in this report. Major differences between the areas and between their rural components will be specified, but most of the tabulations combine the two West Java geographic areas and contrast them with the two combined Central Java areas.

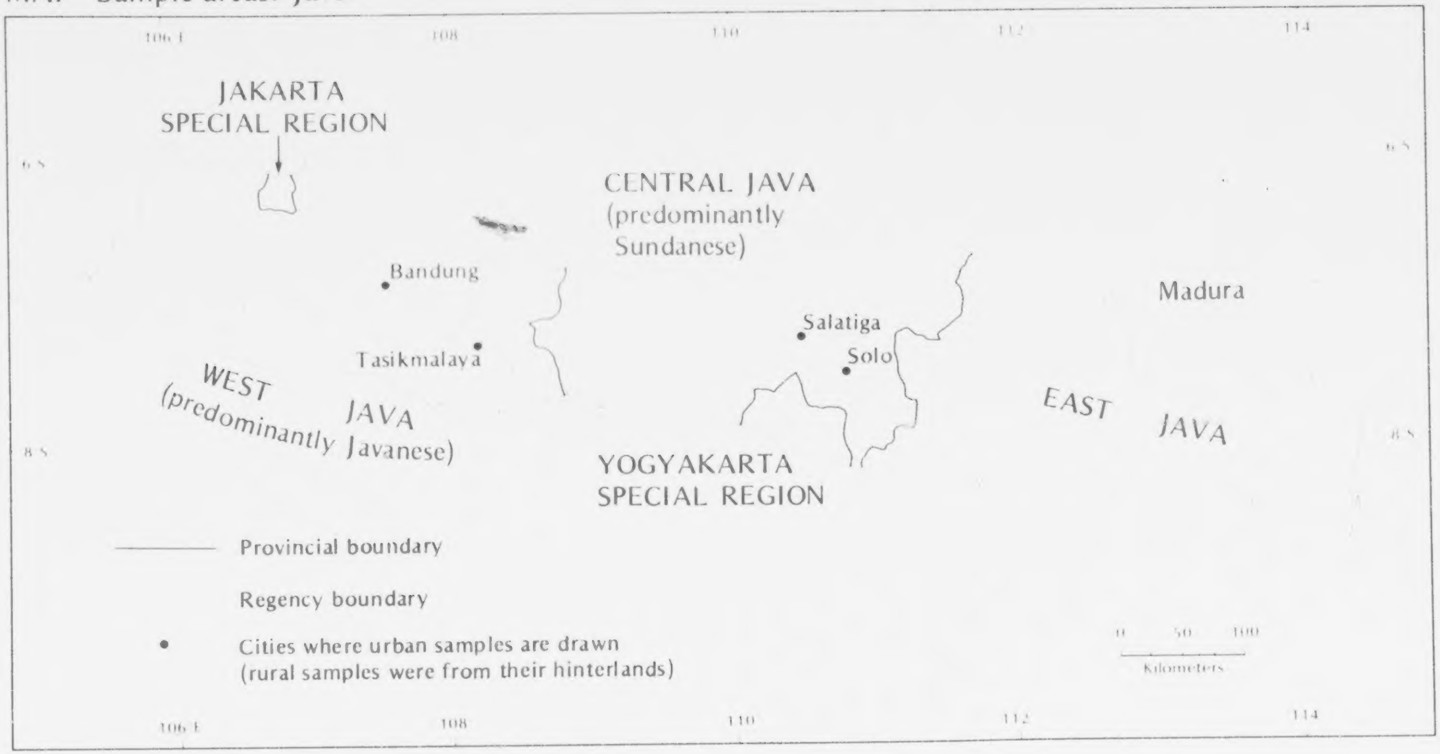
The method of selecting administrative units within each geographic area differed between the rural and urban locations, but both selection patterns were designed to reflect a cross-section of socioeconomic statuses. In the rural areas it was possible to group all the subdistricts within each geographic area into three strata—high, medium, and low—using data on agricultural density, road distance from urban center, proportion of the labor force in agriculture, proportion of the labor force in commerce and industry, and proportion of agricultural land under irrigation. Two subdistricts were randomly selected from each stratum, and then a similar process was used to select three villages in

TABLE 1 Population of sample areas (1971 Census)

Area	Urban center	Rural hinterland
WEST JAVA		
Bandung	1,202,730	1,974,614
Tasikmalaya	135,919	1,177,487
CENTRAL JAVA		
Solo	414,285	1,232,988
Salatiga	69,831	725,805

SOURCE: Indonesia, Central Bureau of Statistics, Census Bureau (1972).

MAP Sample areas: Java


106 E
108
110
112
114
6 S
8 S
JAKARTA SPECIAL REGION
CENTRAL JAVA (predominantly Sundanese)
Bandung
Tasikmalaya
WEST JAVA (predominantly Javanese)
Salatiga
Solo
YOGYAKARTA SPECIAL REGION
Madura
EAST JAVA
Provincial boundary
Regency boundary
Cities where urban samples are drawn (rural samples were from their hinterlands)
0 50 100
Kilometers

each subdistrict, giving a total of 18 rural villages in each geographical area. The household list kept by the village head in each selected village was then used as the sampling frame to select 23 households, by means of systematic sampling with a random start, yielding a target sample of 414 households in each rural area. In each urban area, three subdistricts were selected, one from each socioeconomic stratum (high, medium, low). The lack of socioeconomic data on administrative units within cities meant that the stratification and selection of the subdistricts had to be based on the judgment of city officials. Within each selected subdistrict, we randomly selected one ward, and then selected households within the ward by systematic sampling with a random start, again using as a sampling frame the list of households kept by the ward head. The lists were edited to exclude families whose household head was not Sundanese in the West Java cities or Javanese in the Central Java cities. The number of households sampled in each ward was determined by the proportion of the city's population estimated to be in the socioeconomic stratum represented by the ward; these estimates were of necessity also based on information supplied by city officials. A total of 100 households was the target sample in each urban area.

Eligible respondents in both rural and urban areas were married women below age 40 who were currently living with their husbands. In addition, the husbands of eligible women in every other selected household were interviewed to form the male sample, which was thus about half the size of the female sample. In an attempt to interview enough respondents in each area to achieve the target size of the sample, we allowed substitution for households where interviews could not be conducted because of refusals, ineligibility (including inappropriate cultural background), or failure to make contact after three attempts. Substitutions consisted of the next household on the list or (if necessary) the previous household. Failure to make contact with the selected household was reported by the field supervisors as a significant problem in urban areas. Outright refusals were rare and again mostly confined to the urban areas. The survey teams in the rural areas had the advantage of close cooperation by village officials in helping to explain the nature of the survey to the selected households. A small number (28) of returned questionnaires were rejected from the final tabulations because they were incomplete or had internal inconsistencies. The final sample shown in the tables in this report consists of

1,001 wives and 496 husbands in West Java and 1,031 wives and 495 husbands in Central Java.

Questionnaire, interviewing, coding

The survey was conducted in cooperation with researchers in seven other countries, and utilized the core questionnaire developed specifically for this second phase of the Value of Children project. The core questionnaire is described in the editor's foreword to the publication series in which this report appears (Bulatao, 1979). Only one country-specific question was asked in Indonesia, concerning the number of wives of male respondents. Under Islamic law, as applied in Indonesia, a Muslim man may have up to four wives. In the sample, seven men reported having two wives and one reported having four wives.

The questionnaire was translated first from English into Indonesian, and then from Indonesian into the two local languages, Sundanese and Javanese. Back-translations from the local languages into English were also made, but owing to time pressures these were completed after the interviewing was finished so that the few errors in the original translations could not be corrected. One section of the questionnaire, regarding the most important values in life and whether or not children provide these values, was sufficiently erroneous in translation that it had to be excluded from subsequent analysis.

The field work for tne survey took place simultaneously in West Java and Central Java. Recruitment, training, and supervision of the interviewers were done in West Java by the Institute for Social Research, Padjadjaran State University, Bandung, and in Central Java by the Population Institute, Gadjah Mada University, Yogyakarta. The Population Institute had overall responsibility for the project and coordinated the activities of both institutions to ensure comparability of the resulting data. The interviewers were for the most part graduate students or recent graduates of the two universities, and all of them participated in two-week training programs at the respective institutes. At the completion of the training programs, in mid-February of 1975, groups of interviewers numbering from 12 to 16 were sent to each of the four urban areas to conduct the survey. In all cases interviewers were of the same sex as the respondents in order to minimize embarassment of respondents. Field workers reported few instances of refusals by selected households to be included in the study, nearly all of these being in urban areas. Interviews were conducted in the local language

(Sundanese or Javanese) but responses were written down in Indonesian for ease of checking and coding; all interviewers were fluent in both the local language and Indonesian. Interviews were conducted in the respective rural areas after completion of the urban survey, and all field work was finished by the end of April 1975. Most of the completed questionnaires were checked and edited in the field by one of the supervisors assigned to each team of interviewers, so that return visits to some respondents could be made in cases where errors had been detected.

Coding was done at the Population Institute in two phases. The first covered the structured items in the questionnaire and the second involved content analysis of the open-ended questions using a translation of the coding framework developed for the survey by the Institute for Social Research, University of Michigan. In both phases all items were coded independently by two coders and were then checked by a supervisor. A team of four senior researchers made final consistency checks on all of the open-ended items. Computer processing of the data was done at the Australian National University and tabulations were sent back to the Population Institute for analysis and the preparation of a preliminary report (Singarimbun, Darroch, and Meyer, 1977).

Quality of the data

Apart from the problem associated with the translation of the core questionnaire mentioned above, other issues involving the interview situation, form of the questions, and sampling arose that have had some influence on the interpretation of the results of the survey.

The first of these issues concerns the conditions of the interviews, information about which was written down at the end of each interview by the field worker. These data suggest that in both West and Central Java it was difficult to conduct a private interview, and that in most of the situations (78 percent in West Java, 88 percent in Central Java) at least one other person was present during some part of the interview. Often this "other person" present was one of the respondent's children (51 percent of the interviews in West Java, 69 percent in Central Java), but in a substantial number of instances the respondent's spouse was present (38 percent in West Java, 55 percent in Central Java). Furthermore, the interviewers reported that about 17 to 21 percent of the respondents in both areas were assisted in answering some of the questions. In many cases the prompters were husbands answering for their wives, especially in households where only wives were interviewed. In households where both partners were selected for inclusion in the sample, an attempt was made to interview them simultaneously. Although the extent of help from other persons was not recorded on the interview schedule, subsequent discussion with the field assistants indicated that the help was usually limited to questions to which the respondent initially gave hesitant or uncertain answers, and especially to questions requiring numeric responses. In only a few cases were the respondents dependent to a great extent upon other persons for their answers. It should be noted that the presence of others during the interview reflects the norm for the cultural setting and that extreme measures to assure a private interview would have engendered more problems of rapport and cooperation than accepting their presence.

Another problem arising from the interview situation that must be considered in assessing these data is the different average lengths of the interviews recorded in West Java (80 minutes) as opposed to Central Java (120 minutes). These averages varied between the different geographic areas within each region and between urban and rural areas (Table 2). We anticipated that the urban interviews would take more time than the rural because the urban areas were surveyed first and thus the interviewers would not have had much experience with the questionnaire. We also expected interviews with wives to be longer than those with husbands because some questions were asked only of wives; this expectation was borne out in all of the survey sites except

TABLE 2 Mean interview length (in minutes), by urban/rural location and sex of respondents

	West Java		Central Java	
Location and sex	Bandung	Tasikmalaya	Salatiga	Solo
URBAN	87	81	135	134
Wives	86	80	142	135
Husbands	90	83	120	131
RURAL	84	74	110	120
Wives	86	74	113	122
Husbands	80	72	105	117
Grand mean	80		119	

the two urban areas in West Java. Differences between the individual geographic areas may be due to rules of etiquette that had to be observed by interviewers in the various locales upon entering the home and before beginning the actual questionning, or to such circumstances as the tendency for village officials in some areas to accompany the interviewers and make introductions. It is possible that interviews among the Javanese respondents in Central Java took more time because of the greater amount of formalities to be observed in Javanese than in Sundanese social relations. Finally, the educational levels of the Javanese respondents were much lower than those of the Sundanese sample, and thus it probably took longer to explain some of the more difficult parts of the questionnaire to those respondents. Whether these possibilities are sufficient to explain the overall difference in mean length of interview between the two areas is difficult to ascertain, but it does give some idea of sources of variability in the interviews in the two regions.

As with similar social research in Indonesia, one of the major problems faced in analyzing the data from this survey was constructing an adequate index of socioeconomic status for the sample. The first question that arose was: What constitutes social and economic status in these parts of Java? Data were obtained in the survey on respondents' education, income, and occupation—the three components of many such indices—but there were no questions about land ownership and control, important indicators of status in rural areas. To have added questions regarding land ownership and control that would have yielded satisfactory results would probably have increased considerably the time needed for the interview, and there is no guarantee that all of the female respondents could have given accurate information on this topic. Attempts to use the other three indicators (education, income, occupation) to construct an index have not been very successful, mainly because of the variation between the subsamples (West and Central) in education and income. We found the respondents' level of schooling to have a significant effect in cross-tabulations with various attitude questions in the survey, and thus much of the analysis in this report uses the education variable.

A final comment regarding the quality of the data in the survey is that care was needed when data were aggregated above the level of the geographic areas. This was so because observed differences in some of the basic characteristics of the sample indicate that the sample selected in West Java, particularly in the Bandung area, was much wealthier and more highly educated than one would expect.

Characteristics of the respondents

Basic demographic and socioeconomic characteristics of the sample are shown in Tables 3 and 4 respectively. From these tables comparisons can be made between the Javanese (Central) and Sundanese (West) subsamples, and between wives and husbands. We have not shown here in detail other contrasts such as urban and rural; those tabulations have been published previously (Singarimbun, Darroch, and Meyer, 1977) and are mentioned here where appropriate. More extensive discussion of other elements of the data will be presented in later reports.

The data on age, age at marriage, and period since first married (Table 3) are based on direct questions about date of birth and year when first married. Many Javanese know their day and month of birth and of marriage according to a traditional system based on a combination of the Islamic, Gregorian, and Javanese calendars, and the Sundanese also can reckon dates by a similar system; but many of the respondents, especially those with little education, had difficulty in stating their year of birth in the Gregorian calendar. An exception to this was the group of Sundanese respondents living in areas with Islamic schools (*pesantren*), where knowledge of birth dates according to the Islamic calendar was common. The interviewers had been trained in the techniques of estimating year of birth by using references to known events or by converting dates from the Islamic or Javanese years, but the data on year of birth show some irregularities. A comparison of the distribution of age in single years for the female respondents indicates that the Javanese women tended to report an estimated *age* to interviewers, with a strong preference for ages ending in 0 and 5, whereas the Sundanese tended to report an estimated *year* of birth, with a preference for years ending in 0 and 5. When ages are calculated by subtracting year of birth from 75 (the year of the survey), however, the heapings around age- and year-of-birth preferences are put into the same five-year age category. The conclusion must be reached that these data on age are indicative only, but that differences between Javanese and Sundanese age and sex groups may be real because the errors in each group probably are in similar directions.

The median ages for wives in each locality were recorded at close to 30 years, and for husbands at 35 years (except for men in the urban

TABLE 3 Demographic characteristics of respondents
(Percentage distribution of respondents, by sex and cultural group)

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Age in 1975				
<20	4	2	0	0
20–24	20	15	5	3
25–29	27	23	15	11
30–34	24	29	24	24
35–39	25	31	23	25
40–44	0	0	19	21
>44	0	0	13	17
Total %	100	100	99	101
Number of respondents	1,001	1,031	496	495
Median age	29.3	30.8	35.2	36.2
Age at first marriage				
8–14	15	25	0	0
15–17	53	45	9	9
18–20	23	23	33	32
21–24	7	5	34	30
25–29	2	2	21	23
>29	0	0	3	6
Total %	100	100	100	100
Number of respondents	1,000	1,031	491	491
Median age	16.6	16.0	21.1	21.5
Number of times married				
Once	80	84	76	78
Twice or more	20	16	24	22
Total %	100	100	100	100
Number of respondents	1,000	1,031	496	495
Number of years since first married				
0–5	18	10	13	12
6–10	25	19	24	18
11–15	25	26	26	24
16–20	21	28	17	22
>20	11	17	20	24
Total %	100	100	100	100
Number of respondents	1,000	1,031	491	491
Median number of years	12.0	14.6	12.9	14.9
Number of own living children				
0	5	7	4	6
1	16	15	14	15
2	19	19	19	19
3	17	19	18	19
4	15	14	15	15

TABLE 3 *(continued)*

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Number of own living children *(continued)*				
5	12	12	13	12
6	7	6	7	6
7+	9	7	11	7
Total %	100	99	101	99
Number of respondents	1,001	1,031	496	495
Median number of children	3.1	2.9	3.2	3.0
Number of deceased children				
0	60	64	58	65
1	20	22	23	20
2	11	8	10	10
3+	9	6	9	6
Total %	100	100	100	101
Number of respondents	999	1,031	491	495
Mean number of deceased children	0.8	0.6	0.8	0.6
Wanted more children?				
Yes	41	45	42	43
No	57	52	57	55
Uncertain	2	4	2	2
Total %	100	101	101	100
Number of respondents	1,000	1,031	496	495
Desired family size[a]				
0	*	*	*	*
1	1	1	1	1
2	8	8	6	8
3	21	24	20	23
4	29	27	27	28
5	18	20	19	21
6	12	10	11	10
7+	12	10	15	8
Total %	101	100	99	99
Number of respondents	968	978	478	474
Mean desired size	4.5	4.4	4.6	4.3
Ideal family size[b]				
0	0	0	0	0
1	*	*	2	1
2	8	8	9	9
3	23	27	30	31
4	42	34	34	32
5	14	19	18	20
6	9	8	5	5

TABLE 3 *(continued)*

Characteristic	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
Ideal family size[b] *(continued)*				
7+	3	4	3	2
Total %	99	100	101	100
Number of respondents	899	936	464	450
Mean ideal size	4.0	4.1	3.9	3.9
Currently using contraception?				
Yes	34	38	33	39
No	48	46	52	44
Pregnant	15	13	14	12
Had never heard about contraception	3	3	2	4
Total %	100	100	101	99
Number of respondents	995	1,031	496	495

NOTE: Percentages may not sum to 100 because of rounding.

* Less than 0.5 percent.

[a] Desired family size (that is, desired number of children) was based on the question "How many more children would you like to have?" (for those wanting more children) or "How many in all would you have preferred?" (for those who would have preferred fewer).

[b] Ideal family size (ideal number of children) was based on the question "If you were to start your family over again, how many children would you want to have?" It was not asked of childless respondents.

Solo sample, whose median age was almost 39). The higher ages for the husbands in the Solo sample resulted from their higher age at first marriage. Both female groups had median ages at first marriage close to the minimum legal age for marriage, established in 1974, of 16 years. Urban-rural differences on this variable were pronounced, with urban females marrying about two years later than rural ones, and urban males about four years after their rural counterparts.

The Javanese and Sundanese are widely known for their high rates of divorce, which are reflected in the data on number of times married. Nearly one-fourth of rural husbands and one-fifth of rural wives reported having been married twice or more. Urban marriages seem more stable, and only about 10 percent of wives and husbands in those areas reported being married more than once. It should be noted that these data do not record all cases of divorce in the surveyed households, as persons currently divorced or separated were excluded from the sample. The data on years since first married represent marital duration for only that proportion of the sample that had been married

TABLE 4 Socioeconomic characteristics of respondents
(Percentage distribution of respondents, by sex and cultural group)

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Religion				
Moslem	100	92	100	91
Other	*	8	*	9
Total %	100	100	100	100
Number of respondents	1,001	1,031	496	495
Education (years of schooling completed)				
0–2	13	61	7	41
3–5	29	17	28	23
6–8	39	13	30	18
9–11	10	5	15	7
12+	9	4	20	11
Total %	100	100	100	100
Number of respondents	999	1,031	496	495
Mean number of years	5.9	2.7	6.1	3.4
Occupation[a]				
None or not working	64	37	2	1
Labor (skilled or unskilled)	9	5	17	11
Agriculture	10	23	32	66
Commerce, trading	13	33	17	4
Civil service	4	3	32	18
Total %	100	101	100	100
Number of respondents	1,001	1,031	496	495
Urban/rural experience				
Urban only	11	13	5	11
Rural only	60	75	43	70
Both	28	12	52	19
Total %	99	100	100	100
Number of respondents	970	1,020	489	491
Newspaper reading habits				
Every day	14	3	23	8
Few times/week	15	3	19	6
Rarely	29	11	34	17
Never	42	83	24	69
Total %	100	100	100	100
Number of respondents	1,000	1,031	496	495
Listen to news on radio or television?				
Every day	41	16	61	17
Few times/week	13	5	15	12
Rarely	25	33	19	41

TABLE 4 *(continued)*

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Listen to news on radio or television? *(continued)*				
Never	21	46	5	31
Total %	100	100	100	101
Number of respondents	1,001	1,030	496	495
Type of family				
Nuclear only	77	71	nc	nc
Older generation present	6	13	nc	nc
Other	17	16	nc	nc
Total %	100	100		
Number of respondents	996	1,028		
Level of monthly per capita household expenditure[b]				
High	56	25	nc	nc
Medium	33	51	nc	nc
Low	11	24	nc	nc
Total %	100	100		
Number of respondents	985	1,019		
Median (in Rp.)[b]	2,500	1,500		
Mean (in Rp.)[b]	3,180	1,880		

NOTE: Percentages may not sum to 100 because of rounding.

nc–not calculated.

* Less than 0.5 percent.

[a] For wives, occupation since first married; for husbands, current occupation.

[b] For urban residents, rupiah (Rp.) 3,000 or more was considered a high level of expenditure, Rp. 1,500–2,999 a medium level, and less than Rp. 1,500 a low level. For rural residents high, medium, and low levels of expenditure were Rp. 2,000 or more, Rp. 1,000–1,999, and less than Rp. 1,000 respectively. In 1975 Rp. 415 = US $1.

only once. On average the Javanese sample reported being married about two years longer than the Sundanese, the difference resulting from slightly older current ages and (for wives) slightly younger ages at marriage.

Despite the shorter average periods since first marriage, the Sundanese sample reported higher numbers of both living and deceased children, indicating higher fertility among this group compared with the Javanese sample. Interestingly, in three of the four geographic areas urban respondents (both male and female) reported more living children on average than those in surrounding rural areas. The rural sample, however, reported higher numbers of deceased children, so that total numbers of children born were roughly similar between urban and rural areas. The proportion of respondents in all areas having experienced loss of a child was very high, nearly 40 percent overall. Among female respondents, 26 percent of the urban Javanese and 30 percent of the urban Sundanese reported having lost at least one child, and the figures for the corresponding rural areas were about 12 percent higher still (38 and 43 percent). In this survey, as in others (McDonald et al., 1976:68; Indonesia, Central Bureau of Statistics, 1978:64; White, 1976:371), it is not clear why the Sundanese sample experienced more child mortality, because by socioeconomic criteria the Sundanese sample can be considered wealthier and more educated. It may be that access to health facilities is easier in Central Java owing to the topography of the study areas. A relationship exists in these data between level of child mortality and rural terrain, with fewer wives from the two plateau-plains areas (Bandung and Solo) reporting child deaths (39 and 32 percent) than women from the more mountainous areas around Salatiga and Tasikmalaya (45 and 46 percent).

Another factor that may explain these differences is indicated by the distribution of child loss by period since first married (Table 5). The Sundanese wives had more child mortality than the Javanese at each level of marital duration; and the difference was most pronounced for those marrying before 1955, when West Java suffered severe disruptions from secessionist movements. The extent to which other factors such as infant feeding patterns and regional nutritional deficiencies

TABLE 5 Percentage of wives in each cultural group reporting loss of at least one child, by number of years since first married

No. of years since first married (1)	Sundanese (2)	N	Javanese (3)	N	Difference between Sundanese and Javanese (2) − (3)
0–5	15	175	8	102	8
6–10	31	251	22	198	9
11–15	44	248	40	269	5
16–20	54	214	45	286	8
>20	61	111	47	176	15
Total	40	999	36	1,031	4

NOTE: Percentages for Javanese and difference may not sum to percentage for Sundanese because of rounding.

affected the rates is not known. A more detailed examination of respondents who experienced child loss and its effects on their attitudes to children is presented in the section on special topics.

Another important demographic variable divides the sample along lines similar to that of child loss—the proportion wanting to have another child. Over 40 percent of all respondents stated that they wanted at least one more child, differences between husbands and wives being negligible in most locations. Rural-urban differences were marked only in the Salatiga subsample, where over 50 percent of the respondents in the rural area indicated a desire for more children, compared with about 40 percent in the urban area. Surprisingly, few respondents (3 percent of wives and 2 percent of husbands) were recorded as "uncertain" on this question. Furthermore, all but a similarly small proportion of the respondents were able to give some number of children they would like to have (if desiring more children) or would have preferred (if not desiring more children and not satisfied with the number they had at the time of the interview). This measure of desired family size shows that nearly 70 percent of all respondents wanted to have three, four, or five children and that less than 10 percent wanted two or fewer, with means ranging between four and five. The background and implications of these data will also be discussed in greater detail in the section on major findings.

In contrast to the data on desired family size are those on ideal family size, determined by a question (placed later in the interview schedule) on what number of children respondents would have if they were to begin their family again. That respondents gave a figure on average about one-half child less than they did to the earlier question probably indicates that many of those with large families were satisfied with their current family size but would do things differently if given a second chance.

Levels of contraceptive use reported by the respondents were high; about one-third of the couples in West Java stated that they were currently doing something to prevent pregnancy, and even greater use (38 percent) was reported by those in Central Java (Table 3). These figures were higher than current use rates for those regions reported at that time by the national family planning program (Singarimbun, Hull, and Meyer, 1978). The low levels shown in Table 3 of those who had never heard about contraception indicate that the national family planning program has been very successful in educating nearly all of the population about the availability of alternatives to further childbearing. Current use of contraception was slightly higher in all urban areas of the sample than in the adjacent rural areas, but there were no great differences between the two areas in respect to knowledge about the subject.

Greater differences between the Sundanese and Javanese samples are indicated in Table 4, on socioeconomic characteristics, than are evident in the comparison of demographic characteristics in Table 3. The Sundanese area is known to be strongly Islamic, and nearly all respondents there claimed to be Muslim. The non-Muslims in the Central Java survey areas, nearly all of whom were Christians, were residing primarily in the two urban areas. (Between one-fifth and one-quarter of the urban respondents stated that they were Christian.) Furthermore, although no questions were asked to elicit respondents' degree of "religiosity" or adherence to religious practices, it is likely that many of the respondents in Central Java who claimed to be Muslims had only nominal connections to that faith, in contrast to the wider adherence of the Sundanese Muslims in West Java to the precepts of Islam.

More important for this study were the higher levels of education among the Sundanese respondents than among the Javanese; 58 percent of Sundanese wives reported having completed primary school (six years or more), compared with only 22 percent of Javanese women, whereas for husbands the comparable figures were 65 and 36 percent. Although historically educational levels in the Sundanese heartland (Priangan) have been higher than in other parts of West Java, the educational levels of the present sample were somewhat higher than would be expected from census data. (Unpublished tabulations based on the 1971 Census show that among married women of ages 15–39, 46 percent in the Bandung-Tasikmalaya area and 20 percent in the Solo-Salatiga area had completed primary schooling.) At the bottom end of the scale, many more Javanese respondents than Sundanese had less than two years of education, and persons in Indonesia with less than two years' education can be considered to be nonliterate. Sharp differences between rural and urban areas are also evident on this variable, the urban Javanese being closer to their Sundanese counterparts than was the case for the rural residents.

The differences in respondents' literacy is reflected in the differences in their newspaper reading habits. Many more Sundanese (especially men) than Javanese claimed to read a newspaper regularly. Newspapers are generally not available in rural areas of Java, and therefore it is not surprising that readership in those areas lagged behind that of the urban centers. Differences in hearing news from radio or television were still marked between urban and rural areas and between Sundanese and Javanese, but were not as strong as the newspaper readership differences. Interestingly, the proportions of respondents stating that they owned a radio (63 percent in West Java, 36 percent in Central Java) were greater than the proportions claiming to listen daily to news broadcasts. This finding suggests that in future studies the interview should determine which items on a checklist of consumer durables are in working order.

Two other characteristics measured in the survey that are related to education are occupation and income, the latter measured here by level of family expenditure. Median household expenditures (per capita, monthly) for the Sundanese sample were about rupiah (Rp.) 2,500 equivalent to US $6.00–as opposed to Rp. 1,500 (US $3.60) for the Javanese; mean household expenditures were somewhat higher. These differences are consistent with other data indicating that West Java is more prosperous than other parts of the island, and they reflect the different educational and occupational patterns of the two samples. Sajogyo (1976) has estimated poverty lines for Java in rice equivalents as being 20 kilograms per person per month in rural areas and 30 kg. per person per month in urban areas; at Rp. 100 per kg. of rice (1975 price), the data indicate that 75 percent of the Javanese and 44 percent of the Sundanese respondents were living below the poverty line at the time of the survey. The low level of expenditure in Table 4 indicates respondents whose monthly per capita expenditures were below one-half of the poverty line and who theoretically did not purchase enough calories to sustain life. Of course, it is difficult for rural respondents to estimate their real expenditures because in many cases they grow part of their own food supplies and some other portion is probably provided by barter exchange, but the data nonetheless reflect the impoverished condition of many of the people on Java.

Even more closely related to education are the data on occupation, which, however, do not apply to the large numbers of female respondents (particularly Sundanese wives) who had not worked since marriage. Relatively few Sundanese men in the sample reported that they worked in agriculture, either as farmers or as sharecroppers or farm laborers, a finding that reflects the educational levels of this group. Even among the rural Sundanese men fewer than half worked in agriculture, compared with over 80 percent of the rural Javanese men. Nearly half of all the Sundanese men worked in trading, business, the civil service, or the military; only 22 percent of the Javanese men reported these occupations. Among wives more Javanese than Sundanese women reported working in trading and agriculture. It is common for Javanese women to work in such activities to help support the family financially, but these data indicate that such was not the case among the Sundanese. This finding may be partly attributed to the higher educational and income levels in the West Java sample, but it is probably also part of an underlying cultural pattern in both areas: Javanese wives, particularly those from low-income families, are expected to work in some capacity to increase the family's income, whereas the ideal wife in the Sundanese family is one who remains at home to do the housework and take care of the children.

Two final characteristics that require some comment are the family types and rural-urban experiences of respondents (Table 4). The nuclear family was clearly the norm for both samples, but the detailed tabulations reveal that this pattern was weaker in all of the urban areas, probably as a result of rural-to-urban migration and urban housing shortages. Large-scale movements in the past between rural and urban areas in West Java are indicated by these data on rural-urban experience, particularly for the men. The data are indicative of the civil disruptions in that part of the island following the Declaration of Independence in August 1945, and also indicative of the higher educational attainment of the Sundanese rural males, many of whom probably lived in a city to complete their formal schooling. The extent to which the large proportion of Sundanese men with both rural and urban experience also reflects regional unemployment rates is not known.

MAJOR FINDINGS

In a discussion of the economic value of children in rural Java, T. and V. Hull (1977) mention four things children provide that make them positive assets to the household: direct material contributions, household services, family security, and social prestige and power. Using data from the Hulls' own study of a community near Yogyakarta and from another investigation by White (1976), they show that adolescents, especially those not in school, do adult levels of incomeproducing work—tasks that contribute materially to the household economy such as working in family enterprises, tending livestock, or working outside the family for wages. At younger ages girls work at such tasks for more hours on average than do boys, mainly because the latter are more likely to be in school. As to the net benefit of this labor to the family, the Hulls (1977:846) suspect that, "overall, children as a group would be found to receive more than they return, even though many children, in many family situations, would make substantial net material contributions to the household income."

Perhaps more important net benefits from children in Java are the equally productive tasks they perform around the house, such as cooking, sweeping, fetching water, washing clothes, gathering cooking fuel, running errands, shopping, standing watch, and caring for younger children, primarily siblings. The ability to draw upon a pool of labor in the form of one's children to carry out these essential chores can have a substantial effect upon the family's standard of living in an area like rural Java, and in fact these tasks "offer some of the most potent reasons for bearing many children" (T. and V. Hull, 1977:848). Measurements of the time spent in such tasks by rural Javanese show declines on average after ages 20–29 for women (from a high of 44 hours per week) and ages 30–39 for males (17 hours), indicating that the younger children of the household are taking on more of these chores and thus freeing the parents to work more in income-earning activities (T. and V. Hull, 1977:856–58).

Another powerful argument in favor of high fertility for rural Javanese is the role of children in providing security for parents—material and emotional support when the parents cease productive labor as well as care, comfort, and advice in times of crisis earlier on. Given the present levels of mortality and out-migration, couples in rural Java could reasonably calculate that they would need to bear at least five children to meet such needs (T. and V. Hull, 1977:859–61).

The final beneficial aspect of childbearing discussed by the Hulls, that of accumulating prestige and power (1977:862–64), appears to be limited in Java to those few families already in the upper levels of the highly-stratified rural society found there; the idea of becoming upwardly mobile through one's children is rather unrealistic to the majority of these peasants. T. Hull (1975:321–24) observed, however, that a couple's first child does bring about a significant change in the status of its parents, but this is not necessarily the case for higher-order births.

The negative aspects of childbearing have also been examined by several writers, focusing mainly on the measurable economic costs involved in raising a child. T. Hull (1975:301–2) estimated the material costs of raising a child to age 21 at about US $300 for a poor family and a little over US $1,000 for a family from the wealthier section of the community. In a later study of families whose adolescent children attended school, Sugito (1979) found these costs to have risen sharply, particularly because of greatly increased food prices.

The study reported here looked at all of these positive and negative aspects of children from the viewpoint of the parents, relying on the perceptions of the parents of such benefits and costs rather than on actual measures of hours worked or financial outlays involved. Because of this approach it was possible to identify other salient features of childbearing in the two societies under study, especially the psychological and social rewards and emotional costs of having children. Altogether, we have identified seven dimensions of the value of children that appear to be important to parents in Java. The remainder of this section is organized according to those dimensions.

Instrumental benefits of children

In such societies as Indonesia families are fairly interdependent, and children are an important part of the structure of production and maintenance of the family's material well-being. This is particularly true in nuclear families, which Javanese and Sundanese families tend to be, where the parents rely to a great extent on the assistance they receive from their children, both when the children are still dependent upon their parents, and in their later years when the parents are not able fully to sustain themselves. The assistance parents receive from their children that we label "instrumental benefits" are outlined in Tables 6 to 8. Data in Table 6 are based on an open-ended question, whereas those in Tables 7 and 8 are from structured items.

In Tables 6 and 7 the instrumental benefits are compared with other advantages of children or reasons for having them, such as psychosocial benefits and sex preferences. Although the two tables are not strictly comparable, it is noteworthy that the patterns in the overall categories in both tables are similar–that is, Javanese respondents put greater emphasis on the instrumental advantages of children whereas the Sundanese tended to stress the psychosocial values, and wives placed more importance on instrumental values than did husbands.

TABLE 6 Advantages of having children
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

Advantages	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
INSTRUMENTAL BENEFITS	**42**	**73**	**29**	**68**
Financial support in old age	14	33	8	28
Financial help, no age specified	2	8	2	7
Help with housework	13	12	4	7
Help in business or farm work	4	16	2	22
Other assistance	8	4	13	4
PSYCHOSOCIAL BENEFITS	**56**	**26**	**67**	**31**
Companionship in old age	4	3	5	1
Family continuity	18	11	29	17
Love, companionship, family atmosphere	10	3	5	3
Stimulation, joy, happiness	18	7	18	3
To improve marriage bond	3	*	4	2
Other psychosocial advantages	3	2	7	1
OTHER RESPONSES	**2**	**1**	**4**	**1**
Total %	**100**	**100**	**100**	**100**
Number of respondents	978	1,022	489	487

NOTE: Percentages may not sum to subtotals because of rounding.
* Less than 0.5 percent.

To a great degree these differences were associated with educational levels. Respondents with more education were less likely than others to value children for the material assistance they could expect from them and, conversely, more likely to give a more personal, internalized reason for having or wanting children. Rural or urban residence also was an important variable in these differences, as shown in Table 9. Rural respondents were more likely than their urban counterparts to cite instrumental values of children rather than psychosocial ones, even with educational level controlled. Table 9 also demonstrates the consistency of this pattern between the two selected educational levels, between Javanese and Sundanese, and between wives and husbands. Thus the highest levels of instrumental responses were among the rural Javanese women of lower education, and the lowest levels were among the urban Sundanese men with higher education. Because most of the

TABLE 7 Most important reasons for wanting another child
(Percentage distribution of reasons considered to be important, from structured question, by sex and cultural group)

	Wives		Husbands	
Reasons	Sundanese	Javanese	Sundanese	Javanese
INSTRUMENTAL BENEFITS	**37**	**54**	**33**	**45**
Old-age assistance	23	32	25	26
Economic help	8	16	14	16
Help with housework	6	5	4	3
PSYCHOSOCIAL BENEFITS	**50**	**34**	**52**	**43**
Family continuity	8	5	11	8
One more to love and care for	6	2	8	4
Companion for other children	4	3	6	1
Pleasure from watching children grow	9	7	3	9
Fun to have young children around house	4	1	6	1
Reason to succeed in work	7	5	10	8
Improve husband-wife relationship	12	12	9	12
SEX PREFERENCE	**13**	**12**	**15**	**12**
To have a boy	7	8	8	8
To have a girl	5	4	6	4
Total %	**100**	**100**	**100**	**100**
Number of respondents	969	1,014	433	474

NOTE: Percentages may not sum to subtotals because of rounding.

responses to the question "What are the advantages of having children?" were grouped into either instrumental or psychosocial categories, the opposite pattern emerged for the psychosocial responses.

The types of assistance that parents in Java expected from their children are grouped into main categories in Tables 6–8. The most important single advantage of having children for the Javanese respondents was the perceived assurance that they would thus have some financial support in old age. Roughly the same percentages of Javanese wives and husbands also rated "to have someone to help you in old age" as the most important reason for having another child, and nearly a quarter of the Sundanese sample agreed with this rating. Only about a third of the respondents, however, said that they would expect a "great deal" of old-age support from their children. Also of great

TABLE 8 Help expected from sons and daughters
(Percentage of respondents expecting specified types of assistance, by sex and cultural group)

	Wives		Husbands	
Type of help	Sundanese	Javanese	Sundanese	Javanese
EXPECTED FROM SONS				
Give part of salary to parents when sons work	50	67	46	56
Help younger siblings through school	77	84	82	81
Contribute money in family emergencies	84	83	87	76
Help around the house	77	84	89	89
Support parents financially in old age	79	85	86	79
Give a "great deal" of financial help to parents in old age	39	34	33	30
EXPECTED FROM DAUGHTERS				
Give part of salary to parents when daughters work	43	65	44	54
Help younger siblings through school	65	79	81	79
Contribute money in family emergencies	81	80	86	75
Help around the house	88	96	95	92
Support parents financially in old age	69	83	85	77
Give a "great deal" of financial help to parents in old age	30	28	31	23

NOTE: Responses were to a structured question.

importance for the Javanese respondents was the help one could expect from children, especially sons, in earning the family's income; for the most part this help would be extra hands to do the farm work. The lower proportions of Sundanese respondents giving such answers probably is a reflection of the decreasing dependence of that sample on farm income. When asked for reasons for having sons in particular (Table 8), many Sundanese respondents indicated that sons would help them financially, but fewer than half of them stated that they expected sons to give them part of their salary when the sons began working. Daughters were seen by nearly all respondents as a source of

TABLE 9 Advantages of children, by educational level and urban/rural residence of respondents

(Percentages of respondents ascribing instrumental and psychological advantages in response to question "What are the advantages of having children?")

Type of advantages, years of schooling, and residence	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
INSTRUMENTAL ADVANTAGES				
0–5 years				
Urban	(42)	65	(50)	(50)
Rural	53	79	40	80
6 years or more				
Urban	(18)	46	(15)	(34)
Rural	42	68	24	61
PSYCHOLOGICAL ADVANTAGES				
0–5 years				
Urban	58	(35)	(45)	(44)
Rural	42	20	59	19
6 years or more				
Urban	79	52	77	66
Rural	57	31	71	39

NOTE: Percentages in parentheses based on N $<$ 30.

assistance around the home; for many Javanese women this probably meant that daughters would free them from housework so that the mothers could work outside the house as traders or agricultural laborers to increase the family income.

Psychosocial benefits of children

The variety of what we label psychosocial advantages is greater than for the instrumental advantages, and these types of values are more clearly identified with the urban, more highly educated respondents. The most important of the psychosocial advantages for a large proportion of the respondents was the knowledge that one would have descendants. The label given to this concept in the tables, family continuity, is somewhat misleading as family names are not used in the Javanese and Sundanese societies; but apparently there is some notion of descent, especially through sons, for substantial numbers of respondents gave this as a reason for wanting a son (Table 10).

TABLE 10 Reasons for wanting a son
(Percentage distribution of first-mentioned reasons, by sex and cultural group)

	Wives		Husbands	
Reason	Sundanese	Javanese	Sundanese	Javanese
To help parents in old age	10	4	7	3
To help family financially	36	15	23	9
To help father at work	21	54	26	59
To help younger siblings	6	4	4	3
Other assistance	12	7	14	9
Family continuity	7	4	12	7
Other psychosocial reasons	3	9	5	5
Personal qualities of boys	4	1	6	3
Preference for sons	1	3	2	2
Total %	100	101	99	100
Number of respondents	801	928	414	412

NOTE: Responses were to an open-ended question. Percentages may not sum to 100 because of rounding.

A second important psychosocial advantage of children was the love and companionship one enjoys when one has children around the house and the idea that children provide a positive family atmosphere for the home. Daughters in particular were seen as providing this value for parents (Table 11). Closely related to this concept is the one labeled stimulation, joy, and happiness, which many respondents expressed as children making life complete and worthwhile. In a question at the end of the interview about how life is changed by having children, this idea was one of the most frequently mentioned of all positive responses. Other frequently mentioned psychosocial advantages were becoming more responsible and mature, and working harder.

Apart from feeling a need for children to support them financially in old age, some of the respondents also desired to have children to ensure that they would not be alone when they grew old and that there would be someone they could be with at that time. Old-age assistance, ranked as the most important reason for wanting another child (Table 12), probably included for some respondents the notion of comfort and care in old age rather than purely economic assistance; but it is fairly difficult in the context of these two societies to separate the two. Support in old age for most Indonesians of necessity includes

TABLE 11 Reasons for wanting a daughter
(Percentage distribution of first-mentioned reasons, by sex and cultural group)

Reason	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
To help parents in old age	7	4	4	2
To help with housework	73	76	73	84
To help parents with other work	*	8	0	4
Other assistance	2	1	1	1
Companionship and love	12	7	9	4
Other psychosocial reasons	3	1	3	1
Personal qualities of girls	1	1	3	*
Preference for daughters	1	1	6	3
Total %	99	99	99	99
Number of respondents	805	928	408	405

NOTE: Responses were to an open-ended question. Percentages do not sum to 100 because of rounding.

* Less than 0.5 percent.

both direct economic assistance for daily needs and companionship. Many respondents, in fact, expressed the idea in terms of having someone to live with when they got old, or having a place of refuge in old age.

A final psychosocial advantage of children described by respondents was the positive effect of children upon the relations between husband and wife. This value should not be regarded as identical to the Western idea of parenthood making spouses more endeared to each other, but rather as something that lends stability to an institution that is traditionally unstable. A portion of the responses citing this advantage can probably be attributed to the tendency for marriages that do not result in children at an early stage in these two societies to be dissolved, and therefore for the first child to be a sign that the couple are fecund and the union fortuitous. We found further evidence for the perception that children are a stabilizing influence on marriage in replies to a question about whether respondents approved of the use of contraception within marriage but before the birth of the first child; nearly 70 percent of all wives and over one-half of husbands disapproved of contraception at this stage of the marriage.

TABLE 12 Most important reason for wanting another child
(Percentage distribution of responses to structured question, by sex and cultural group)

	Wives		Husbands	
Reason	Sundanese	Javanese	Sundanese	Javanese
To help in old age	23	32	15	26
One more to help financially	8	16	14	16
To help with housework	6	5	4	3
Family continuity	8	5	11	8
Someone to love and care for	6	2	8	4
Companion for other children	4	3	6	1
Pleasure from watching children grow	9	7	3	9
Fun to have young children at home	4	1	6	1
More reason to succeed in work	7	5	10	8
To bring husband and wife closer together	12	12	9	12
To have a boy	7	8	8	8
To have a girl	5	4	6	4
Total %	99	100	100	100
Number of respondents	968	1,014	433	474

NOTE: Percentages may not sum to 100 because of rounding.

Economic costs

The negative aspects of having children are grouped into three main categories: economic costs, opportunity costs, and emotional costs (Tables 13 and 14). Nearly 80 percent of the respondents rated financial problems as the most important ones they faced in having children. Worry and emotional strain were ranked second, ahead of children keeping one from doing other things.

A fourth major category envisioned in the initial value of children framework was social costs, in particular concerns about overpopulation; but this concept attracted little attention either as one of the general disadvantages of children (Table 13) or as an important reason for not having an additional child (Table 14). Later during the interview respondents were asked to rank these four costs, and over two-thirds of them regarded problems of overpopulation as least important.

Table 13, which is based on responses to an open-ended question, shows that between 3 and 11 percent of respondents in each subgroup

TABLE 13 Disadvantages of having children
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

	Wives		Husbands	
Disadvantages	Sundanese	Javanese	Sundanese	Javanese
FINANCIAL COSTS	**12**	**33**	**30**	**44**
School expenses	3	5	5	5
Health expenses	1	7	2	9
General expenses	9	21	24	30
OPPORTUNITY COSTS	**11**	**3**	**4**	*
Reduced freedom	9	2	4	*
Harder to have a job	2	1	*	0
EMOTIONAL COSTS	**70**	**55**	**53**	**47**
More work, bother	17	4	9	1
Worry about children's health	36	39	21	32
Worry about future	1	1	3	1
Unpleasant aspects	13	9	13	11
Other emotional costs	3	1	7	2
OTHER DISADVANTAGES	**3**	**5**	**2**	**4**
"NO DISADVANTAGES"	**3**	**5**	**11**	**5**
Total %	**99**	**101**	**100**	**100**
Number of respondents	982	1,020	485	493

NOTE: Percentages may not sum to subtotals or 100 because of rounding.

* Less than 0.5 percent.

stated there were no disadvantages in having children. The open-ended question about disadvantages of children was placed early in the questionnaire, immediately after the question on advantages of having children, and it is possible that respondents giving this answer had not really thought about children in such terms before. The largest group saying there were no disadvantages—urban Sundanese males—had a similarly high percentage saying such things as "That's a good number" in reply to a question about why they would not want to have more children than the number they wished to have. Although this group was better educated than others in the sample and could be expected to give responses having a more rational content, that they did not do so may possibly be explained, at least in part, by relatively less involvement in childcare by husbands than by wives in both of these societies.

TABLE 14 Most important reasons for not wanting another child
(Percentage distribution of responses to structured question, by sex and cultural group)

	Wives		Husbands	
Reasons	Sundanese	Javanese	Sundanese	Javanese
FINANCIAL BURDEN	**41**	**40**	**45**	**46**
OPPORTUNITY COSTS	**6**	**8**	**6**	**4**
Reduced freedom	4	4	2	1
Harder to have a job	3	5	3	3
EMOTIONAL COSTS	**38**	**40**	**36**	**32**
More work, bother	4	5	4	4
Less time with spouse	2	2	2	3
Worry about children's health	10	19	3	14
Cannot give enough care	11	6	15	8
Hard to discipline	12	8	11	3
OTHER REASONS	**14**	**12**	**13**	**18**
Too old to have another	12	9	9	12
Concern about overpopulation	2	2	5	6
Total %	**99**	**100**	**100**	**100**
Number of respondents	969	1,012	471	479

NOTE: Percentages may not sum to subtotals or 100 because of rounding.

Differences in male and female parental roles were also reflected in the greater concern by husbands about economic problems and the greater concern by wives about emotional strains and opportunity costs associated with having children.

About two-thirds of the respondents in each subgroup who identified economic costs as a disadvantage of having children mentioned financial expenses in general (Table 13). The remainder specifically cited expenses related to children's medical care or education. Higher proportions of Javanese than of Sundanese respondents of both sexes mentioned medical expenses and worry about children's health, even though the level of child mortality was lower among the Javanese sample. In response to specific questions later during the interview about the kinds of costs associated with children, the Javanese were more likely than the Sundanese to mention concerns about children's health as a cause for worry and strain (19 percent vs. 9 percent). But the Sundanese were more likely to mention medical expenses as the greatest cost in raising children (18 vs. 9 percent).

TABLE 15 Disadvantages of children, by educational level and urban/rural residence of respondents
(Percentages of respondents citing economic and emotional costs in response to question "What are the disadvantages of having children?")

Type of disadvantage, years of schooling, and residence	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
ECONOMIC COST				
0–5 years				
Urban	(15)	40	(55)	(61)
Rural	12	35	24	47
6 years or more				
Urban	15	(22)	(35)	(26)
Rural	10	(28)	31	45
EMOTIONAL COST				
0–5 years				
Urban	65	45	(14)	(33)
Rural	70	52	61	43
6 years or more				
Urban	62	66	47	61
Rural	74	66	55	47

NOTE: Percentages in parentheses based on N < 30.

Table 15 shows the relationship of urban or rural residence and education to respondents' perceptions about the disadvantages of children. The patterns revealed by these data are weaker than those relating residence and education to the advantages of children (Table 9) but are similar in their directions. The proportion of respondents citing economic costs as a disadvantage of children decreased with rising levels of schooling, except among the Sundanese rural husbands, where the proportion increased. Javanese respondents (except urban males) were more likely than the Sundanese to mention economic costs at both higher and lower levels of education. Mention of economic costs was most prevalent among the rural Javanese, but no rural-urban contrast was evident in the Sundanese sample. The most consistent pattern associated with economic costs was the greater perception of them by male than by female respondents. Among the Sundanese in particular, the salience of economic costs was differentiated by sex, only one-third to one-half as many wives as husbands mentioning them.

Earlier value of children studies (see Arnold et al., 1975:97–98) attribute this difference to the husband's traditional role as the major supplier of income for the family. The data presented here support that interpretation and indicate, moreover, that among societies where women also contribute substantially to the family income (as among the Javanese, but not the Sundanese) the differences between husbands' and wives' perceptions regarding economic costs will be less. Less educated Javanese wives, particularly the rural ones, were much more likely to mention economic costs than were Sundanese wives with similar educational backgrounds.

Emotional costs

Table 15 also indicates that emotional costs were more salient than economic costs to respondents in each subgroup except among urban Sundanese husbands with little education and Javanese husbands with little education. In Table 13 the overall figures (not controlling for place of residence or education) show a similar contrast. These two tables are based on a general, open-ended question. When asked specifically in a structured question (Table 14) to compare the various costs of having children, however, respondents overwhelmingly indicated that economic costs were the most important and emotional ones a distant second. Nevertheless, the salience of emotional costs cannot be discounted. The mention of such costs by large proportions of the sample without their being suggested to respondents probably indicates a widespread concern about them.

Because emotional and economic costs together accounted for between 75 and 95 percent of the responses to the open-ended question (Table 15), it is not surprising that some patterns are opposite to those shown earlier in response to the structured item (Table 14). In particular mention of emotional costs was positively correlated with years of schooling. Wives were more likely than husbands to mention emotional costs. On the other hand, rural-urban differences and contrasts between equivalent groups in the two cultures were minor.

The types of emotional costs mentioned most frequently were concerns about the health of the children (including worry that children might die), the additional trouble and bother that children bring into one's life, unpleasant aspects of parenthood (such as having to put up with the misbehavior of children), worries about children's future prospects school, marriage, employment and worry about their character in general. Concern about the children's health was uppermost in the minds of many respondents; but when later asked to rank the most important reasons for not having another child (Table 14), fewer respondents (especially among the Sundanese) placed emphasis on this concern. In contrast, nearly the same proportions of respondents placed importance on children being "hard to discipline" (Table 14) as mentioned "unpleasant aspects" of rearing children (Table 13). Few respondents mentioned being concerned that children might pose problems for the marital relationship or assigned importance to that concern as a reason for not having another child. In contrast, the worry that one could not give enough care and attention to an additional child ranked fairly high in importance, especially among the Sundanese. This concern was closely associated with higher educational attainment and urban residence.

Opportunity costs

Much less important to respondents as a negative aspect of children were opportunity costs, things that prevented parents from doing what they otherwise would be able to do. One aspect of opportunity costs is the restriction children place on a mother's time, which may prevent her from holding a job outside the home. In the structured item respondents were asked to rank various reasons for not having another child as the most important. One of these was "because it would be harder for you to have a job." Unfortunately, the question put to husbands was not phrased, as we originally intended, to mean "harder for *your wife* to have a job," and therefore it is not possible to determine the prevalence of that perception in the male samples. In any case, it seems that the problem of children preventing mothers from being gainfully employed was relatively minor among the female respondents. As noted earlier, only a minority of the Sundanese women reported that they had held a job since marriage, but this tendency for Sundanese women not to work after marriage seems to be due to a cultural prohibition on such activity rather than to a childcare problem. In contrast, among the Javanese women, a majority stated that they had worked since marriage. Anthropological studies (H. Geertz, 1963:95; V. Hull, 1975:184–88) have detailed the ways in which Javanese women, particularly those from the poorer sections of the community, manage their children while holding jobs. Later in the VOC interview our respondents were asked to mention what things children interfered with or prevented them from doing, and only about 10 percent of the wives stated that they could not work outside the home because of children.

A second opportunity cost mentioned by respondents when answering the open-ended question was the feeling of being tied down and having less freedom to go out socially (Table 13). One would expect to find this cost to be mentioned mainly by the more Westernized or modernized segment of the societies being studied; and this was true if one considers the Sundanese, with more years of schooling, to be more modernized than the Javanese. In the responses to a later question about specific types of interference from children (not tabulated here), some urban-rural differences among the wives were evident. Seven percent of urban Javanese and 15 percent of urban Sundanese women mentioned some sort of interference, as opposed to 3 percent and 8 percent of their rural counterparts. Among men there was little urban-rural contrast, but the overall levels were slightly higher than for wives. Of much greater importance to the female respondents than children's interference with social freedom was their interference with housework. For husbands, children's interference was less of a problem. Nearly 70 percent of the Javanese and over 40 percent of the Sundanese men answered that children do not interfere with anything, an indication perhaps of the low degree of involvement of these men in the running of their households. Again, anthropological observations (H. Geertz, 1963:79) lend support to the impression one gets from these data that Sundanese and Javanese husbands leave much of the responsibility of childrearing to their wives.

Qualities desired in children

We turn now from the positive and negative aspects of parenthood to a somewhat different dimension in the overall value of children, which we identify as the qualities that parents wish their children to have. The purpose of this portion of the interview was to explore parental perceptions of desirable qualities in children, which, according to some population theorists, become increasingly important as parents begin to limit their family size. First, respondents were asked what qualities they would like to see in their sons and daughters. The first responses to these questions, grouped into major categories, are shown in Tables 16 and 17. Next, respondents were asked to select the most important quality that children could have out of five possibilities; the results are given in Table 18.

TABLE 16 Qualities desired in sons
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

Qualities	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
PERSONALITY TRAITS	**64**	**26**	**62**	**32**
Good, moral person	59	20	59	22
Well-mannered	3	3	1	4
Other traits	2	3	2	6
ACHIEVEMENT	**14**	**24**	**17**	**23**
In school	11	16	15	13
Other	3	8	2	10
FAMILY ROLE	**21**	**49**	**20**	**44**
Good to parents	20	47	19	42
Other	1	2	1	2
OTHER	**1**	**1**	**1**	**2**
Total %	**100**	**100**	**100**	**101**
Number of respondents	999	1,025	496	493

NOTE: Percentages may not sum to 100 because of rounding.

TABLE 17 Qualities desired in daughters
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

Qualities	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
PERSONALITY TRAITS	**51**	**21**	**57**	**28**
Good, moral person	45	13	53	16
Well-mannered	3	4	3	7
Others	3	4	1	5
ACHIEVEMENT	**10**	**20**	**14**	**20**
In school	7	8	12	10
Other	3	12	2	10
FAMILY ROLE	**39**	**59**	**28**	**52**
Good to parents	20	54	20	46
Other	19	5	8	6
OTHER	*	**1**	**1**	**1**
Total %	**100**	**101**	**100**	**101**
Number of respondents	1,000	1,027	495	492

NOTE: Percentages may not sum to 100 because of rounding.
* Less than 0.5 percent.

Comparing first the qualities desired in sons with those desired in daughters, we were somewhat surprised to find similarities between the two patterns, for we had expected respondents to desire different qualities in the two sexes. Cross-tabulation of responses about sons and daughters indicates high correlation at the individual level; that is, parents who gave a certain response for qualities desired in sons were likely to give the same or a similar response for qualities desired in daughters. The one notable exception to this pattern was in the quality of "family role," which was considered more desirable in daughters than in sons. Included in this category were being good to parents, positive actions toward siblings and other family members, and achievement in marriage (being a good wife, mother, and homemaker in the case of daughters; being a good husband, father, and provider in the case of sons). Detailed tabulations show that respondents placed more emphasis on the qualities of being a good parent and being a good homemaker for daughters than for sons; and this emphasis accounts for much of the difference observed for this category between Sundanese and Javanese respondents.

Although a majority of both ethnic groups subsequently rated "to obey parents" as the most important quality in children (Table 18), fewer respondents mentioned being "good to parents" (a similar concept) when describing qualities desired in sons and daughters (Tables 16 and 17). When speaking about qualities desired in sons and daughters specifically, Sundanese respondents mentioned moral qualities

TABLE 18 Most important quality in children
(Percentage distribution of responses to structured question, by sex and cultural group)

	Wives		Husbands	
Quality	Sundanese	Javanese	Sundanese	Javanese
Obedient to parents	66	74	52	68
Independent, self-reliant	8	4	11	5
Popular, liked by others	2	2	1	3
Successful in school	9	9	9	7
A good person	15	12	27	17
Total %	100	101	100	100
Number of respondents	998	1,028	486	482

NOTE: Percentages may not sum to 100 because of rounding.

(especially good religious habits) more frequently than good relations with parents, whereas this pattern was reversed among the Javanese, for whom good relations with the parents were both salient and important qualities in children. The latter finding was not surprising in view of the greater desire among the Javanese for instrumental assistance from their children. The notion of being good to parents included being obedient, willing to help parents, taking care of parents, working with parents, understanding parents' difficulties, and honoring the parents; it was thus a mixture of what we earlier labeled as instrumental and psychosocial advantages, but with an emphasis on the former.

Sex preferences

The final dimension of the value of children studied in this survey was the preferences of parents for certain types of family composition. The main feature of composition of interest is sex preference. The perceived desirability of certain numbers and combinations of children was a part of this dimension, and it is examined in the next section.

The questionnaire contained one direct question regarding sex preferences. Respondents were asked to choose, in a hypothetical situation, the best combination of sexes if they could have only three children. As expected, most chose one boy and two girls or two boys and one girl. Then respondents were asked to choose the next best combination, assuming their first choice were not possible, and many selected the opposite combination. Finally, they were asked to choose what combination they would want if neither the first nor the second option were available—in other words, three boys and no girls or three girls and no boys. As indicated in Table 19, many of the respondents could not make such choices; over half of the Javanese and over one-third of the Sundanese respondents were unable to accept the choices offered. This finding may be indicative of the weakness of sex preferences among these two groups, especially relative to preferences in other Asian and Islamic societies. Of those who could answer the last stage of this question, preferences for their own sex were moderately strong among the Sundanese, less among the Javanese husbands, and absent in the Javanese wives.

One explanation for the weaker preferences for sons in these two societies, relative to son preference in other Asian cultures (particularly the Chinese and Indian), is the lack of a lineal kinship system and the relatively low salience of the need for sons to carry on the family

TABLE 19 Preferred sex of children
(Percentage distribution of responses to a question that required respondents to choose a family composed entirely of one sex or the other, by sex and cultural group)

	Wives		Husbands	
Preference	Sundanese	Javanese	Sundanese	Javanese
Sons	24	19	47	35
Daughters	42	19	20	13
Unable to answer	34	62	33	51
Total %	100	100	100	99
Number of respondents	809	932	420	415

NOTE: Percentages may not sum to 100 because of rounding.

line. As we noted earlier, continuity of the family was the single most frequently mentioned psychosocial advantage of children in general, but it was mentioned much less frequently than most of the instrumental advantages. Twelve percent of the Sundanese husbands gave this response, compared with 7 percent of the Javanese husbands; about half as many wives in each group mentioned family continuity as an advantage.

Differences in sex preferences between the Sundanese and Javanese may be related to different reasons for wanting sons and daughters (Tables 10 and 11). Instrumental advantages were strongest for both sexes of children (especially help in business or farm work and financial help from sons, and help in housework from daughters), and these were about equal in salience for the two culture groups; but the main psychosocial advantages of children of a specific sex (family continuity for sons, love and companionship for daughters) differed between the two groups in the direction and extent of the observed differences in sex preferences.

Summary of main findings

The data presented above indicate that there was considerable variation within the sample in the values attached to children, with major differences according to cultural group, sex, education, and place of residence. When examining the broad advantages of having children, we found that the Javanese placed more emphasis than the Sundanese on the instrumental or material benefits from children, such as financial aid, assistance in old age, cooperation in household chores, and help in family enterprises. In contrast, the Sundanese stressed the psychosocial or emotional aspects of childrearing–family continuity through one's descendants, companionship, stimulation, happiness, and improved relations between spouses. These differences were consistent when sex, education, and rural-urban residence were controlled, and they were consistent for most of the individual advantages or benefits. Within the two cultural groups, differences based on sex, education, and place of residence were also quite strong. Material advantages were more likely to be mentioned by wives, rural residents, and those with less education. Conversely, psychosocial benefits were emphasized more by husbands, urban dwellers, and respondents with higher educational attainment.

When the types of costs–economic, emotional, opportunity, and social–of having children were ranked by the respondents, economic ones were clearly perceived as the most pressing by all the main subgroups in the sample. On other questions, however, respondents emphasized emotional costs (particularly concerns about the health of children) as much as financial considerations. Differences between the various subgroups were similar to but less pronounced than those found for the advantages of children: The importance attached to economic costs tended to decrease with increasing education; Javanese placed more emphasis on economic costs than did Sundanese; rural-urban differences were negligible for the most part; and husbands were more likely than wives to mention economic costs–in accordance with findings from other countries.

Two other aspects of the value of children were explored in this study, the qualities desired in children and the preferences for children of a certain sex. The data indicate only weak preferences for children of the same sex as the respondent, and little distinction made between sons and daughters in relation to desired characteristics. The Sundanese respondents wanted their children to have strong moral qualities, especially religious habits, whereas the Javanese put more importance on close relationships between parents and children.

SPECIAL TOPICS

Although the data permit the development of several themes, we have concentrated on three as being particularly important in the Indonesian context. The first concerns the relationships between attitudes toward having additional children and attitudes toward family planning. As this survey was one of the first to find relatively widespread use of family planning in Central Java, these associations are important in a historical sense. Furthermore, they constitute a backdrop against which to view the two remaining special topics: child-loss experiences and desired and ideal family sizes as they are related to the value of children. We have selected the second topic, child loss, because, given the general state of our knowledge regarding the social effect of infant and child mortality on fertility (see Ware, 1977), it is desirable to examine in some detail the associations between child-loss experience and the value of children in a country where the mortality levels are still fairly high. Specifically, we wanted to examine these relationships in a society whose dense living conditions ensure that virtually any occurrence of child death is known about by many others because we wished to consider the extent to which community experience of child loss affects reproductive behavior, regardless of the experiences of individual couples. Though developed to some extent here, these ideas will be elaborated in a separate report. The third special topic concerns the patterns of responses to questions about desired and ideal family sizes. This issue is of particular relevance to any discussion about the possibility of Indonesia approaching a two-child norm (replacement fertility) in the foreseeable future.

Family planning patterns

Throughout this discussion it must be borne in mind that the VOC Study was not intended to be a thorough family planning survey, so that some data that would normally be collected in such a survey are not available. In general our data indicate that knowledge of family planning methods and issues was virtually universal among the VOC sample; that contraceptive use was fairly high in both survey regions and in both rural and urban areas; that most of the observed patterns were in expected directions; and that no unusual relationships existed between family planning intention and use and the perceived advantages and disadvantages of children. Although economic values were often mentioned, the prevalence of noneconomic values in the responses highlight the importance of not focusing excessively on economic values in assessing family planning behavior.

The pattern of correlations of a family planning index measure (constructed from questions about general approval of family planning

TABLE 20 Correlations of family planning index with basic sociodemographic characteristics

Sociodemographic characteristic	Javanese				Sundanese			
	Female		Male		Female		Male	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Respondent's educational level	.40†	.20††	.46†	.20††	.29†	.02	.27†	.00
Expenditure	.09	.12*	.04	.12	.15*	-.12††	.19	.02
No. of children living at home	.10	-.03	-.07	.10*	.00	.06	.09	.05
Desired family size	-.04	-.03	-.36††	-.09	-.04	.01	-.01	.06
Age	.05	.01	-.23†	-.06	.14	.14††	.04	.05
Age at marriage	.20*	.04	-.09	-.03	.26††	.06	.03	.03

* $p < .05$.
† $p < .01$.
†† $p < .001$.

and about approval under specific conditions) with key background variables is shown in Table 20. In general the patterns are what would be expected: Favorable attitudes toward family planning were moderately correlated with socioeconomic scores of urban respondents but not with those of rural respondents except for a weaker relationship among rural Javanese; the educational levels of both female respondents and their spouses were positively associated with family planning attitudes, and as before the relationships were strongest in urban groups but virtually nonexistent among rural Sundanese respondents, with the rural Javanese falling midway; correlations of income were weakly associated with family planning attitudes among rural Javanese respondents and urban Sundanese; on remaining characteristics of occupational status, the number of children at home, desired family size, age, age at marriage, and marriage duration, there were scattered positive correlations but most were fairly weak.

Multiple regression analysis gives better evidence of the predictive power of the variables just discussed (Table 21). The variables concerning media exposure and levels of schooling provide most of the predictive power for favorable attitudes toward family planning, but there are interesting changes in the patterns when subgroups are analyzed. Of particular interest in Table 21 is the importance of the locus

TABLE 21 Zero-order correlations (r), regression coefficients (betas), and proportion of variance explained in stepwise multiple regression (r^2) for prediction of favorable family planning attitude, by socioeconomic and demographic characteristics of respondents

Sample and variable[a]	r	beta	r^2
TOTAL SAMPLE (N = 2,935)			
Frequency of hearing or reading news	.22	.16	.047
Internal vs. external locus of control	−.05	−.07	.051
Percentage of life spent in urban area	.02	−.09	.055
Level of schooling completed	.19	.12	.061
Monthly household expenditure	.01	−.06	.064
Number of living children[b]	.06	.04	.067
Occupational status of husband	.16	.04	.068
Current age	.05	.03	.069
Age at first marriage	.08	[c]	[c]
JAVANESE WIVES (N = 1,015)			
Frequency of hearing or reading news	.24	.15	.057
Occupational status of husband	.20	.08	.068
Level of schooling completed	.23	.15	.073
Percentage of life spent in urban area	.06	−.10	.079
Number of living children[b]	.07	.09	.086
Internal vs. external locus of control	−.07	−.05	.088
Monthly household expenditure	.03	−.04	.090
Age at first marriage	.08	.01	.090
Current age	.01	[c]	[c]
JAVANESE HUSBANDS (N = 484)			
Level of schooling completed	.21	.23	.044
Percentage of life spent in urban area	−.02	−.19	.044
Frequency of hearing or reading news	.19	.12	.077
Age at first marriage	−.02	−.03	.079
Current age	−.09	−.06	.079
Number of living children[b]	−.01	.04	.080
Monthly household expenditure	.05	−.02	.080
Internal vs. external locus of control	−.07	−.01	.081
Occupational status	.14	−.01	.081
SUNDANESE WIVES (N = 961)			
Frequency of hearing or reading news	.18	.20	.032
Internal vs. external locus of control	−.15	−.16	.049
Monthly household expenditure	−.08	−.11	.064
Current age	.14	.15	.079
Percentage of life spent in urban area	−.03	−.11	.089
Number of living children[b]	.03	−.07	.092

TABLE 21 *(continued)*

Sample and variable[a]	r	beta	r^2
Age at first marriage	.08	.05	.093
Level of schooling completed	.06	-.06	.094
Occupational status of husband	.11	.03	.095
SUNDANESE HUSBANDS (N = 475)			
Internal vs. external locus of control	-.20	-.23	.039
Number of living children[b]	.08	.09	.049
Percentage of life spent in urban area	.00	-.06	.053
Age at first marriage	-.01	-.05	.054
Frequency of hearing or reading news	.05	.03	.055
Occupational status	.05	.02	.055
Monthly household expenditure	.03	-.01	.055
Current age	.03	c	c
Level of schooling completed	.04	c	c

NOTE: Sample sizes used in the multiple regression analysis are less than the number of persons interviewed because cases of missing data on any of the variables used in the analysis were excluded. Family planning attitude was measured by approval of use of contraception in general and in three specific situations—to delay the birth of the first child, to space births, and to prevent further pregnancies after having all the children desired.

[a] The variables are listed for each sample according to their priority in adding to the proportion of variance explained (r^2).

[b] Number of living children includes own children, step-children, and adopted children.

[c] This variable was not included in the regression equation because its *F* ratio was insufficient for further computation.

of control variable in the Sundanese male sample. This variable concerns the extent to which people see their lives being controlled by themselves or by outside events and circumstances. Further interpretation of this variable is not possible without more extensive information on which aspects of family formation and planning the men saw as within their control. This question suggests an avenue for further study.

Detailed analyses of various subsets of these variables and different subgroups of respondents for the most part reinforced the general patterns. There was little approval for use of family planning to delay the first birth regardless of the type of respondent or location. Approval for family planning was higher among users than among nonusers. Respondents who were unsure about whether they would practice contraception tended to mention psychosocial advantages of children more often than respondents who were already using contraception. This suggestive pattern needs to be explored further; insufficient evidence exists in this study to reach a firm conclusion on this matter. Similar detailed analyses revealed no major differences between mention of advantages and disadvantages and the use of contraception. Again we found some suggestive patterns (e.g., respondents who mentioned emotional disadvantages of children were more likely than others to be unsure about the use of contraception), but these patterns need to be investigated in future studies.

To understand more fully the relationship between attitudes toward family planning and actual family planning practices, it is useful to examine the data pertaining to wanting or not wanting additional children. Analyses of the degree of importance respondents attached to 22 reasons for wanting and not wanting additional children indicate the following general patterns: In most instances respondents who wanted more children attached greater importance to reasons for wanting more children than did respondents who did not want more children, and this pattern was consistent and substantial; conversely, respondents who did not want more children usually attached greater importance to reasons for not wanting more children than did other respondents, but the pattern was less consistent and the differences less significant; respondents who assigned importance to reasons for having more children and considered reasons for not having more children to be relatively unimportant were much less likely than other respondents to be practicing contraception, presumably because they were also the respondents who did want another child. These patterns were consistent with our expectations based on usual relationships found between attitudes and family planning practices.

In addition, several correlational analyses indicated the importance of these attitudinal factors concerning more children. Table 22 shows Pearson correlations between the importance that female respondents attached to reasons for wanting more children and the number of additional children they actually wanted. (Correlations for reasons for not wanting more children are not shown in the table because the values were small and few were significant.) The table also shows correlations controlled for the effects of age, education, and parity. Controlling for the effects of parity produced the sharpest reduction in the correlations. Age had next most substantial effect, and education (in contrast to the result from analysis using cross-tabulations) had little effect. When all three major variables were partialled out, the resultant

TABLE 22 Zero-order and partial correlations between number of additional children wanted and importance of reasons for wanting another child: wives
(Partial correlations controlled for education, age, and parity separately and together)

				Partial *r*							
	Zero-order *r*			Education		Age		Parity		Education + age + parity	
Reason for wanting another child	Total sample	Java-nese	Sun-danese	Java-nese	Sun-danese	Java-nese	Sun-danese	Java-nese	Sun-danese	Java-nese	Sun-danese
To have someone to love and care for	.35	.39	.40	.37	.38	.27	.30	.23	.26	.20	.25
So that there will be one more person to help family economically	.21	.24	.24	.24	.22	.15	.11	.17	.14	.14	.12
Because you want to have a/another boy	.42	.42	.42	.44	.41	.35	.32	.31	.28	.29	.27
To provide a companion for your child/children	.38	.39	.41	.38	.41	.28	.31	.24	.26	.21	.24
Because another child would give you more reason to succeed in work	.22	.24	.29	.23	.24	.17	.17	.17	.15	.15	.14
To be sure in your old age you will have someone to help you	.17	.16	.28	.16	.21	*	.14	*	.14	*	.13
To have a child to help around the house	.16	.17	.26	.16	.21	.11	*	.13	.12	.11	.11
Because of the pleasure you get from watching child grow	.16	.19	.25	.16	.16	*	.15	*	*	*	.11
To bring you and your husband closer together	.20	.19	.28	.19	.22	.13	.19	.13	.13	.11	.14
Because you want to have a/another girl	.40	.43	.40	.43	.39	.34	.31	.30	.27	.28	.26
To help carry on family name	.19	.20	.30	.18	.26	.14	.20	.14	.19	.13	.18
Because it is fun to have young children around the house	.17	.21	.24	.22	.17	.15	.15	.15	.11	.13	.12

* Not significant at the .05 level.

correlations were only marginally different from those controlled for parity alone. In other words, the parity of the respondents by itself was a major factor, as expected, in shaping their attitudes toward reasons for wanting or not wanting more children.

Correlations of the attitudinal factors with the family planning index failed to produce similar patterns either for the simple or the partial correlations. Although we obtained significant (positive) correlations between attitudes toward having more children and the number of additional children wanted, even when age and parity were partialled out, no similar pattern emerged of significant correlations between the attitude items and the combined index of family planning attitudes, either in the simple correlations or the partialled ones. This finding provides evidence consistent with general findings in KAP (knowledge, attitudes, and [fertility] practices) surveys that family planning knowledge is a poor indicator of childbearing attitudes or fertility intentions, whereas questions concerning the desirability of additional children and ultimate family size show consistent and significant correlations with the attitude items.

Further analysis of the relationship between the desire for no more children and current contraceptive practice is summarized in Table 23. As in other countries, despite the context of universal knowledge of family planning, it is apparent that contraceptive practice did not match the levels of knowledge among either Sundanese or Javanese wives. Even among the highest age group with the higher parities, not more than 73 percent of those wanting no more children and believing they were still able to conceive were practicing contraception. Among younger women who wanted no more children the proportions using contraception were considerably lower, especially in the Sundanese groups. These results are interesting in themselves for they indicate the imperfect relationship between knowledge and practice. This is a common finding in population studies; but it is usually unclear, as in this case, whether the pattern reflects reality or whether women say they want no more children when in fact they are undecided. The data in Table 23 are especially interesting for their policy implications because in all age groups the proportion of women wanting no more children was smaller for lower-parity than for higher-parity respondents and among those who wanted no more children contraceptive practice was only moderate except for women in the higher-parity groups, regardless of age. Another finding of interest is that among Javanese women

TABLE 23 Percentage of exposed women stating they wanted no more children and, of those, percentage stating they were using some form of contraception, by age, number of living children, and cultural group

Age group and number of living children	Javanese N	Javanese Wanting no more children	Javanese Of those wanting no more, % using some method	Sundanese N	Sundanese Wanting no more children	Sundanese Of those wanting no more, % using some method
Age less than 30						
0–3 children	320	18	56	347	24	39
4+	65	71	70	92	84	36
Age 30–34						
0–4 children	168	45	57	115	58	61
5+	79	85	69	96	90	52
Age 35–39						
0–4 children	92	67	63	52	48	48[a]
5+	110	91	73	75	95	65
Total	834	49	65	777	53	50

NOTE: Exposed women included all in sample (married women, living with spouse, age less than 40) except those who said they were pregnant or that it was no longer possible for them to have a child.

[a] Based on less than 30 (12 of 25) cases.

wanting no more children the levels of contraceptive use were similar regardless of age, for the comparable parity groups. Such was not the case in the Sundanese data. Here we found substantially lower levels of contraceptive use in the youngest group as well as smaller discrepancies between the lower- and higher-parity respondents. These patterns suggest that the family planning messages have been more thoroughly received and followed in Central Java than in the Sundanese sample areas. The differences may also indicate different levels of motivation to cease bearing children: this possibility is suggested by the finding that in most of the age-parity groupings shown in Table 23 more Sundanese than Javanese women stated that they wanted no more children, although among these women the Javanese were more likely to be using contraception. These results suggest the need for more detailed study of parity-specific attitudes toward additional children.

No clear patterns can be discerned within these broader trends when age and parity are used as control variables. Mainly such analysis reinforces the foregoing discussion; that is, intention and use were both somewhat more likely among the older and high-parity women, but they were not sharply lower among younger and less fertile women. With respect to advantages and disadvantages it is also not possible to discern any major trends concerning intention to use, or actual use of, contraception.

As indicated at the outset of this section, some of these results are not surprising given the nearly universal awareness of family planning in the sample. What is surprising is that intention and use patterns were not sharply distinguishable on any of the variables discussed. Perhaps the most important point to be considered is that for those who were uncertain about using contraception or not using it emotional disadvantages and psychosocial advantages of children seemed, generally, to be more important than more conventional economic ones. One interpretation of this finding is that individuals for whom social and emotional issues are more dominant than economic ones are far more likely also to be ambivalent about family planning than others. Should this interpretation be confirmed by further research it would have implications for the types of appeal made by the family planning program to such ambivalent people. Further study of these possibilities should be made in surveys designed for the purpose of clarifying such linkages.

Effect of child mortality on the value of children

As indicated previously, the incidence of child loss reported by respondents was high. Compared with data on child mortality reported by Hull and Rohde (1978), those obtained from the VOC sample were reasonably consistent with the levels of infant and child loss recorded for Java as a whole. In examining the sociodemographic characteristics of respondents who had suffered child loss, we discovered several patterns (Table 24).

Rural respondents had experienced considerably more child mortality than urban respondents, and Sundanese more child deaths than Javanese. Analysis of the extent of rural and urban experience shows that respondents who had lived only in rural areas reported the greatest loss, those who had lived in both rural and urban areas somewhat less, and urban dwellers the least. The proportion who had experienced loss among those with mixed (urban and rural) experience was substantially less in Central Java (20 percent) than in West Java (41

TABLE 24 Percentage of respondents reporting child loss, by respondent characteristics

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Total reporting child loss	40	36	43	36
Urban/rural residence				
Urban	29	26	36	22
Rural	42	38	43	39
Urban/rural experience				
Urban only	26	28	32	18
Rural only	42	39	48	39
Both	41	20	38	34
Age and parity				
< 30 years, 0–2 children	28	24	na	na
30+ years, 0–4 children	36	40	na	na
< 30 years, 3+ children	38	25	na	na
30+ years, 5+ children	51	45	na	na
Age at marriage				
8–14	49	44	na	na
15–17	44	34	na	na
18–20	34	36	na	na
21–24	11	15	na	na
25+	22	19	na	na
Years of marriage				
0–5	15	8	17	10
6–10	31	22	23	24
11–15	44	40	42	32
16–20	54	46	61	45
20+	61	47	65	52
Family type				
Nuclear only	42	40	na	na
Older generation present	33	28	na	na
Younger or same generation present	32	22	na	na
Years of schooling completed				
0–2	53	43	62	44
3–5	52	29	59	38
6–8	36	27	40	30
9–11	24	14	36	23
12+	15	15	19	17
Level of monthly per capita household expenditure				
High	38	27	na	na
Medium	42	37	na	na
Low	42	41	na	na

TABLE 24 *(continued)*

Characteristic	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
Desired number of children				
0–2	35	42	48	48
3	34	36	29	33
4	36	33	38	33
5	42	34	44	34
6+	50	38	52	38
Ideal number of children				
0–2	32	38	36	40
3	36	33	38	41
4	36	35	37	34
5	39	36	53	33
6+	56	46	51	44
Listen to news on radio?				
Every day	37	25	38	30
Few times per week	39	29	39	40
Rarely	36	34	60	38
Never	49	41	50	34
Currently using contraception?				
Yes	37	37	43	40
No	42	34	41	34
Pregnant (self or wife)	40	37	65	52

na—not applicable.

percent). As we mentioned earlier, these differences are counter to that expected on the basis of the literacy and expenditure levels for the two areas and probably are related in part to historical factors. Possibly they are also related to parents' access to health services at childbirth or when children were ill. Other explanations might include local nutritional levels for infants and children, endemic diseases, or climate; the survey did not gather information on such topics. For respondents with only urban experience there was little difference in child mortality between Central and West Java, a finding that seems to suggest that in both areas the prospects for child survival were greater and more similar in an urban, rather than rural, setting. Even among urban respondents, however, the proportions reporting child loss were substantial, ranging from 18 percent for Javanese males to 32 percent for Sundanese males. Regardless of location or rural/urban experience, the loss of a child was a fairly common occurrence and might be expected to affect the perceptions of costs and advantages of children.

Using a combined age-parity measure, we found that young Javanese women, of low or high parity, were least likely to have experienced child loss (24–25 percent), and that among young Sundanese women those with low parity were less likely to have experienced child loss (28 percent) than high-parity women (38 percent). Among older women the percentages reporting a child death were higher for both ethnic groups, and on average half of those with five or more living children had lost a child.

Women who had married at younger ages (under 17) constituted well over half the sample, and they had experienced more child loss than other women, as would be expected. The incidence of child loss was higher for Sundanese than for Javanese women who had married before age 17, but among women who had married at older ages the proportions reporting a child death were more similar for the two ethnic groups–a finding related to similarities in educational and socioeconomic levels for those marrying late.

Correlations between child mortality and the length of marriage were discussed briefly in the section on characteristics of the VOC sample. Interesting differences between the Sundanese and Javanese observed in these data are related to age at marriage and family formation patterns. As can be seen in Table 24, by the time a Javanese woman had been married ten years she stood about a 20 percent chance of having lost a child, whereas her Sundanese counterpart stood a 30 percent chance of such loss. By the time women had been married 20 years the chances had increased to approximately 45 percent and 55 percent respectively. For those married longer than 20 years the chances remained close to 45 percent for Javanese respondents but had increased to 60 percent for Sundanese. These differences between the two groups are probably connected with historical events, but as the VOC survey did not collect data on specific dates and causes of child mortality it is not possible to verify this hypothesis.

There was little difference in reported child mortality levels between Sundanese and Javanese according to type of family. But child loss was disproportionately high for both groups among those living in nuclear families. Such families were also more likely to be poor and rural.

Literacy levels were related to child mortality in the anticipated manner, with women of little education having experienced the greatest incidence of child loss. Javanese wives reported lower rates at all literacy levels except for those with 12 or more years of schooling.

Furthermore, the decrease in reported child mortality between 0–2 and 3–5 years of schooling was sharper for Javanese than for Sundanese. Particularly interesting is that at all literacy levels men were more likely to report child loss than were women with comparable education. One possible explanation is that families in which the husbands had low educational attainment were more likely to be poor and thus less able to provide the minimal requirements for their children's health than were families in which only the wives were poorly educated. This finding also may reflect the experience of male respondents in previous marriages, or it may indicate more accurate recall on the part of the husbands.

Correlations between desired and ideal family sizes and child mortality were fairly similar for the two ethnic groups. For the ideal measure the proportion of women reporting a child death was in the 30 to 40 percent range except among those indicating an ideal of six or more children, where percentages were higher; for the latter group ideal and actual parity coincided in many cases. What is of particular interest, though, is that the Javanese respondents (and to a lesser degree Sundanese husbands) who said they desired a small family (of 0–2 children) were much more likely to have lost a child than those desiring larger family sizes. This pattern of response may reflect life experience more than choice in that the desire for two or fewer children was more likely to be reported by low-parity respondents as their length of marriage increased; such respondents "preferred" smaller families perhaps because they had been unable to have larger ones.

For all subgroups those who heard news broadcasts daily were least likely to have lost a child, a trend related to educational levels. Regarding contraception, respondents who reported they were not currently using some method were, except for Sundanese wives, less likely to have lost a child than those who were using contraception, probably because those not using a method were younger and of lower parity.

Among respondents who had experienced child mortality, most had lost only one child (Table 25). Nonetheless, a quarter of those reporting child loss had had two children die and another 11–13 percent had lost three children. Those who had lost three or more constituted only 5–6 percent of those reporting child loss in the Central Java sample but 9–11 percent of those in the West Java one. Seen another way, of those who had lost a child 40 percent had lost more than one; this in turn means that of the total sample about 20 percent had experienced multiple child deaths.

TABLE 25 Percentage of respondents reporting child loss and, of those, percentage who lost specified number, by sex and cultural group

	Wives		Husbands	
Item	Sundanese	Javanese	Sundanese	Javanese
Total reporting loss	40	36	42	36
Number of deceased children				
1	50	60	55	57
2	27	23	24	27
3	13	11	11	11
4+	9	6	11	5

Additional analysis showed that those who had had a child die were slightly more likely than others to be using contraception, but presumably this correlation was related to age, parity, and perhaps also clinic contact as a result of health problems with a child. The present study did not collect data that can be used to examine the last possibility.

We turn now to an examination of the relationship of child loss experience to perceptions of children. Few strong differences emerged in the perceptions of children between respondents who had experienced a child death and those who had not, but several showed sufficient consistency to be interesting and informative (Table 26).

Looking at the advantages of children variable, one sees that those who reported child loss were more likely to mention the instrumental advantages of economic help in old age and help with housework. In contrast, those who had not lost children were more likely to mention psychosocial advantages, such as the stimulation, joy, and happiness that children provide and the continuation of the family. Furthermore, the main reasons mentioned for wanting a son (help in business or farm work) and a daughter (help with housework) were given more frequently by those who had lost a child. Neither of these patterns is dramatic, but they are consistent for wives and husbands in both survey areas and they are supported by the tabulation of responses to the question on the most important reasons for wanting another child.

As for disadvantages of children, respondents who had lost a child were more likely to mention economic costs and worry about children's health than other respondents. These disadvantages were also mentioned more frequently as the major reasons for not having another child by people who had experienced child loss. Though the

TABLE 26 Percentage of respondents indicating selected advantages of children, disadvantages, and reasons for wanting sons and daughters, by whether or not they had lost a child

	Wives				Husbands			
	Sundanese		Javanese		Sundanese		Javanese	
Opinion	Loss	No loss	Loss	No loss	Loss	No loss	Loss	No loss
ADVANTAGES OF CHILDREN								
Economic help in old age	14	14	36	31	10	6	31	26
Help with housework	16	11	14	11	5	4	8	6
Love, companionship	7	11	3	3	4	4	2	3
Stimulation, joy, happiness	13	21	3	9	16	18	2	4
Family continuity	17	19	18	9	24	32	13	19
DISADVANTAGES OF CHILDREN								
General expenses	9	8	26	18	22	24	32	28
Reduced freedom	8	10	1	2	2	4	0	1
Worry about children's health	36	34	42	37	23	20	30	33
Unpleasant aspects	14	11	8	10	9	14	14	9
MOST IMPORTANT REASONS FOR WANTING MORE CHILDREN								
Help in old age	28	20	35	30	15	14	33	21
To improve marriage bond	10	13	10	14	9	9	14	12
Family continuity	10	7	4	5	10	11	6	9
MOST IMPORTANT REASON FOR *NOT* WANTING MORE CHILDREN								
Financial burden	43	40	41	39	47	44	48	45
Worry about sick children	11	10	18	20	6	1	14	13
Too old	10	13	10	14	9	9	14	12
Overpopulation	1	2	2	2	4	6	4	7
REASONS FOR WANTING A SON								
Help in business	21	21	60	51	33	22	61	58
REASONS FOR WANTING A DAUGHTER								
Help with housework	72	74	79	74	77	71	88	81

percentages who mentioned being tied down by children (one of the opportunity costs) were small, this disadvantage was more salient to those who had not lost a child than to those who had. The remaining disadvantage mentioned frequently–unpleasant aspects–showed no clear association with the experience of child loss, but the relationship between child loss and the responses "too old" and "problems of overpopulation" as reasons for not having more children, although weak, were in the expected direction.

Though more extensive analysis of child loss effects will be done, the basic patterns already seem clear. Those who had lost children were more likely than others to be poor, not well educated, old, married long, of high parity, and rural. Slightly over half of them had lost only one child, but a significant proportion (40 percent) had lost more than one. The effects of loss on the value of children showed many consistencies across groups of respondents. Those who had experienced the loss of a child placed greater emphasis on the instrumental advantages of children and, conversely, children's economic costs; but it is likely that these patterns are related more to underlying educational levels than to the child-loss experience.

The patterns of responses thus suggest that values that might be affected by child loss were held to a fair extent by all respondents, regardless of whether they had experienced a child death. This finding is consistent with the proposition that in societies like Indonesia, where the rate of infant and child mortality is relatively high, even if one has not lost a child personally, it is virtually certain that one has close friends, neighbors, or relatives who have lost a child, and consequently it is unlikely that sharp value differentials will be found between those who have and have not lost children. The results probably indicate a general effect of the prevailing mortality patterns, and sharper differentials will only occur as child loss becomes a culturally rare event rather than the personal experience it is for the Sundanese and Javanese people whom we surveyed. Further implications of this pattern of child loss experience for health and population policies are discussed later in the paper.

Desired and ideal family sizes

One of the most interesting issues in any demographic survey concerns respondents' perceptions of family size. As summarized earlier in the discussion of Table 3, in most instances the family sizes VOC respondents desired and considered ideal were quite similar for both male and female respondents and for both Sundanese and Javanese. For the total sample in each region the basic pattern was that fewer than 10 percent opted for family sizes of zero to two children, about 20 percent expressed a desire for three, approximately 30 percent preferred four, another 20 percent preferred five, and some 20 percent preferred six or more. The main contrast between desired family size and ideal family size was that for the ideal measure there was much greater heaping of responses in the three- and four-children categories and consequently far fewer saying five or more children were an ideal family size. In general, desired family size was larger than ideal family size: to a considerable extent desired family size simply reflected reality—that is, respondents' actual fertility experiences.

When we analyzed desired and ideal family sizes by the basic characteristics of female respondents (Tables 27 and 28), several important patterns became clear. There was a tendency for urban respondents to express preferences for three and four children, whereas rural respondents were more likely to prefer four and five. When preferences for three, four, and five children were combined, however, the percentages were virtually the same, with 60 to 70 percent of respondents saying they preferred family sizes in this range. The urban/rural differential was more apparent in the ideal measure, where urban respondents were much more likely than rural wives to state three children as an ideal. Furthermore, women with rural and urban experience expressed family-size preferences more like those of rural respondents than like those of urbanites, the majority of both mixed-experience and rural respondents preferring a family of four children. A substantial number of women (about 25 percent) with mixed experience expressed a preference for six (or more) children; this finding is almost entirely attributable to their actual parity, duration of marriage, and age. The preferences mainly reflected the demographic realities experienced by these respondents.

The age-at-marriage variable indicates that women who married late were more likely than others to concentrate their family-size preferences around three or four children. Only among Sundanese marrying at age 25 or later was there a substantial proportion opting for two or fewer children. Women marrying at ages 18–20 also showed some preference for small families, but this pattern was weaker. It may also reflect a social desirability bias in the answers, and we do not believe the response pattern can be interpreted as indicative of a trend. Classifying female respondents by length of marriage yields more interesting results. Those married less than five years were likely to desire and idealize three and four children much more than any other number. This section of Table 27 shows one of the only places where a degree of consistency was obtained for a moderate (i.e., 15 percent) proportion choosing zero to two children as a desired or ideal family size. Respondents married for more than 15 years revealed sharper differences between ideal and desired family sizes. Almost half of these women desired family sizes of five or more children – a preference that again reflected actual parity experience; but these same respondents idealized a family size of three or four children. Women married a shorter length of time were more likely than women married longer to prefer small families, and this relationship presumably reflected both the effect of family planning propaganda and the stage of the family life cycle they were in. Given that 60 percent of female VOC respondents had married at ages below 18 and that most of those married for shorter periods would remain at risk of pregnancy for some years to come, the interpretation of this apparent shift toward a preference for smaller families must be made with considerable caution. Reasons for this caution are elaborated below.

Years of schooling showed no strong correlations with size of family desired or idealized. Nonliterate women expressed preferences that were more evenly distributed from three to six or more children than did those with more education. The higher the level of schooling the more likely was the stated preference to be for three or four children. This pattern was even more apparent in the ideal measure. As with the length-of-marriage measure, the relatively high (25 percent) proportion expressing a desire for six or more children appears to indicate that their actual reproductive experience influenced their desired family size.

The interaction of age and parity can be seen readily in Tables 27 and 28. The majority of young, low-parity women expressed preferences for three and four children, and only 16–17 percent of this group desired smaller families. The extent to which desired and ideal measures reflected actual parity can be seen better in the group who were over 30 but of low parity; it was this group who expressed the greatest preference for families of fewer than four children. This pattern almost certainly demonstrates the effect of the respondent's parity on the desired and ideal measures.

In addition to the general patterns shown in Table 27, we examined preferences for additional children using an unfolding technique developed by Coombs (see Coombs, 1974). The questions for this technique force respondents to indicate whether, if they could not have their preferred number of children, they would want more or fewer.

TABLE 27 Percentage of wives indicating specific desired and ideal

	Sundanese						
	Desired number					Ideal	
Characteristic	0–2	3	4	5	6+	0–2	3
Total %	9	21	29	18	24	9	23
Residence							
Urban	6	22	32	18	22	7	29
Rural	10	20	28	18	24	8	14
Urban/rural experience							
Urban only	6	23	31	17	24	9	25
Rural only	10	21	28	17	24	9	23
Both	6	19	30	20	24	9	23
Age at marriage							
8–14	9	18	24	18	31	6	21
15–17	8	20	28	19	25	9	22
18–20	11	23	30	15	21	11	24
21–24	3	26	42	18	11	8	34
25+	18	27	36	18	0	10	33
Years of marriage							
0–5	15	30	43	8	5	16	31
6–10	9	32	35	15	10	10	29
11–15	4	13	31	27	25	6	20
16–20	8	11	20	21	41	5	17
20+	12	17	7	15	49	6	16
Years of schooling completed							
0–2	13	19	24	21	23	10	19
3–5	11	20	26	16	28	9	21
6–8	6	21	29	18	23	10	23
9–11	3	17	36	20	24	1	26
12+	6	32	36	18	9	10	32
Age and parity							
< 30 years, 0–2 children	17	31	41	8	3	16	32
30+ years, 0–4 children	42	31	18	6	2	26	27
< 30 years, 3+ children	0	22	31	28	19	4	21
30+ years, 5+ children	1	10	21	23	45	2	17
Level of monthly per capita household expenditure							
High	9	21	31	18	22	8	25
Medium	10	21	26	21	22	9	23
Low	9	18	27	10	36	9	16
Listen to news on radio?							
Every day	6	20	28	20	26	7	23
Few times per week	10	22	31	22	16	7	21
Rarely	9	21	32	16	22	7	29
Never	15	21	25	13	25	17	17

number of children, by background characteristics and cultural group

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
42	14	12	9	24	27	19	20	8	27	34	29	12
38	12	14	8	28	31	13	21	9	34	35	16	6
43	15	12	9	23	26	21	20	8	26	33	29	14
38	14	13	8	27	33	13	19	10	30	38	16	6
43	14	11	10	23	26	21	20	8	26	32	20	14
42	13	13	7	23	27	17	25	10	32	37	15	6
47	10	16	10	23	24	21	22	8	25	32	19	16
42	15	12	8	21	26	21	23	8	25	33	18	14
40	14	11	11	27	29	16	16	10	29	36	19	6
31	17	11	2	42	24	16	16	4	41	28	20	6
57	0	0	9	29	44	9	9	5	52	43	0	0
42	8	3	15	33	35	11	7	16	41	31	12	0
41	12	8	8	33	33	18	7	8	35	36	16	6
43	19	12	8	26	30	21	15	7	28	36	16	12
39	18	21	7	19	21	22	30	8	22	20	24	15
47	11	19	11	13	20	19	37	5	18	35	20	21
36	22	13	10	23	24	20	22	7	24	33	20	15
44	13	13	7	25	28	22	18	8	25	34	20	13
40	14	12	8	25	35	17	15	10	35	40	10	5
48	13	12	6	29	27	15	23	8	46	31	12	2
43	7	8	5	30	35	15	15	8	31	33	20	8
41	7	3	16	34	32	12	6	12	38	33	12	5
37	10	0	32	34	21	7	5	22	39	28	8	4
42	20	13	0	22	34	29	15	7	26	34	21	11
44	17	21	0	15	24	25	36	2	18	36	25	19
43	14	9	12	30	27	14	17	8	39	34	10	8
40	15	13	8	22	26	22	22	7	23	35	20	14
41	11	23	8	22	28	20	22	9	24	30	24	12
41	15	13	6	30	29	16	19	9	37	33	15	6
49	14	8	7	21	49	14	8	6	41	39	6	7
41	12	11	8	24	26	23	19	6	18	35	20	11
40	13	14	11	21	26	19	22	10	22	32	20	16

TABLE 27 *(continued)*

	Sundanese						
	Desired number					Ideal	
Characteristic	0–2	3	4	5	6+	0–2	3
Currently using contraception?							
Yes	5	17	32	19	27	7	23
No	12	24	28	23	24	10	25
Pregnant	9	13	14	19	15	9	22
Experienced child loss?							
Yes	8	18	27	18	30	7	22
No	9	23	30	18	19	10	24

TABLE 28 Percentage of husbands indicating specific desired and group

	Sundanese						
	Desired number					Ideal	
Characteristics	0–2	3	4	5	6+	0-2	3
Total %	8	20	27	19	26	10	30
Residence							
Urban	8	21	29	21	22	11	42
Rural	8	19	26	19	27	9	27
Urban/rural experience							
Urban only	15	23	27	19	15	24	48
Rural only	7	20	24	22	26	9	27
Both	8	19	28	17	27	9	31
Age at marriage							
8–14	0	25	25	50	0	0	0
15–17	5	24	27	21	24	9	31
18–20	13	15	26	18	28	13	22
21–24	7	21	24	19	29	8	31
25+	5	23	33	20	20	9	38
Years of marriage							
0–5	10	37	31	16	6	10	39
6–10	10	30	34	18	10	11	33
11–15	5	13	30	29	23	8	31
16–20	12	9	21	21	36	15	16
20+	5	14	15	13	53	6	30

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
45	13	12	6	21	27	23	23	7	26	34	20	13
41	13	11	12	30	27	16	16	10	31	33	16	10
36	19	14	3	14	28	25	31	3	18	37	21	20
39	14	18	11	24	25	19	21	9	25	32	18	15
44	14	8	8	24	28	20	20	8	29	34	19	10

ideal number of children, by background characteristics and cultural

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
34	18	8	10	23	28	21	18	10	31	32	20	7
27	17	3	8	21	33	20	18	8	34	31	21	5
35	19	10	9	24	27	21	18	10	30	32	19	10
16	8	4	6	23	40	23	8	9	31	38	20	2
37	17	10	9	23	28	21	19	9	30	33	19	8
33	21	7	9	24	22	20	24	12	34	23	23	7
50	50	0	0	0	0	0	0	2	37	39	17	5
29	20	11	9	30	27	20	14	13	20	41	18	8
38	17	9	10	18	30	20	21	13	34	24	22	6
30	20	11	11	22	25	23	18	3	42	27	21	8
34	15	3	6	27	31	19	17	15	30	30	18	7
29	16	5	14	44	30	8	3	19	42	25	8	6
38	11	7	8	33	36	16	6	11	40	30	15	4
32	19	8	9	24	36	20	11	10	33	31	31	5
38	20	11	11	12	24	26	25	10	23	36	22	10
29	26	9	6	14	18	24	36	6	26	33	25	10

TABLE 28 *(continued)*

	Sundanese						
	Desired number					Ideal	
Characteristics	0–2	3	4	5	6+	0–2	3
Years of schooling completed							
0–2	8	14	25	31	22	17	29
3–5	9	22	19	19	30	10	28
6–8	12	14	30	18	26	8	23
9–11	3	26	24	21	26	9	37
12+	4	23	36	16	22	10	38
Listen to news on radio?							
Every day	8	19	28	18	28	7	23
Few times per week	7	23	25	19	26	7	21
Rarely	8	21	28	24	17	7	29
Never	17	12	17	21	33	17	17
Currently using contraception?							
Yes	6	18	32	15	29	10	32
No	10	22	24	18	26	10	31
Pregnant	2	16	29	33	21	5	25
Experienced child loss?							
Yes	8	15	25	20	33	8	27
No	8	23	28	19	22	10	32

Analysis of the series of questions by parity and age-parity groups has indicated that when given the forced choice most repondents moved toward a preference for a completed family of four or five children, rather than fewer than four or more than six. This pattern holds for both sexes. In other words, the results indicated that the underlying preference structure was substantially and consistently toward families of four and five children, not toward families with fewer than four children.

Regardless of the characteristic being focused upon, this preference structure was evident. Only 5–15 percent of respondents expressed a preference for families of fewer than three children (i.e., what observers from developed countries might consider small families); more than half of the respondents preferred families of three and four children, and the remainder opted for families of five or more children. Most of those expressing a preference for parities greater than four seemed to be affected by their actual fertility experience, even though their ideal of family size clearly favored three and four children. To put it another way, on the Coombs measures most of those who

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
20	29	6	11	24	25	20	19	11	31	31	20	7
33	19	9	11	23	26	20	20	8	32	35	19	9
39	18	12	3	25	31	25	16	9	30	30	22	9
29	20	6	9	9	40	30	23	9	18	41	23	9
35	12	5	8	26	33	18	16	12	42	26	18	2
41	16	13	6	21	40	14	20	5	35	35	19	7
49	14	8	7	20	27	25	20	11	23	22	26	7
40	12	11	11	24	25	22	17	11	33	29	19	8
40	13	14	10	25	26	21	18	11	29	35	19	6
36	16	6	7	19	34	19	21	10	28	36	19	6
34	16	9	13	28	24	23	12	12	37	26	20	5
26	34	10	2	19	30	29	30	2	20	37	24	17
30	24	10	12	22	26	20	19	9	25	32	18	15
36	15	7	8	24	30	21	18	8	29	34	19	10

preferred small families had already had them (presumably owing to child loss or subfecundity in most cases); and the majority of respondents who were in their early and prime childbearing years expressed preferences for family sizes of three, four, and five children, thus reflecting the normative experiences of the regions surveyed. An additional comment should be made about the measure of ideal family size: A central premise behind the unfolding techniques generally and the particular one developed by Coombs (1974) is that it comes closer to gauging psychological reality than measures like ideal family size; by implication the Coombs measure has greater reliability and validity than stated ideal family size. In other words, our interpretation is that it is more likely that actual psychological preferences of VOC respondents in Indonesia centered on four or five children rather than on three or four, even for those who stated three as their ideal. The preferences showed no major effects of either contraceptive practice or child mortality, a finding that may suggest in the former case that the main use of contraception was for spacing or prevention once childbearing was complete rather than for limitation of family size to a small number, and in the latter case that child loss was a common concern in the community, affecting both those who had experienced it and those who had not.

IMPLICATIONS OF THE FINDINGS

Prospect for a two-child norm

The data presented in this report bear on the question of whether a two-child family norm is emerging in Indonesia, particularly in Java. The data concerning preferences for numbers of children, both desired and ideal, provide little evidence that either Sundanese or Javanese VOC respondents preferred small families. The majority of male and female respondents in both cultural groups opted for families of three, four, or five children; slightly more favored three and four than favored five for their ideal number but gave four and five more often as their desired number. Child loss was prevalent but did not produce strong differentials in either the values attached to children or family-size preferences between those who had experienced child mortality and those who had not.

Rural, poor, less literate respondents, who constituted the majority in both Sundanese and Javanese survey areas, were more likely than other respondents to prefer larger families. However, even urban and highly literate respondents tended to prefer families of three or four children rather than smaller ones. On Java, under prevailing social conditions, it is almost certain that a family of three or four children is considered to be small; families of two or one are anomalous. Those who expressed a preference for families of one or two children were of two types: those who were young and recently married, and those who were older and married longer than ten years but of low parity. The existence of the former group may indicate an increasing preference for smaller families in Java, though they were still a small minority within their own age group, whereas the latter group apparently were rationalizing their actual experience—they preferred a small family because that is what they had, whether through child loss, infecundity, or other circumstances beyond their control. A small number of couples indicated a desire for small families and were practicing contraception, but the proportion seems too small to have a demographic effect or to influence the normative structure of the society. A shift toward a smaller-family norm may possibly be seen in respondents' preferences for families of three and four children rather than four and five, but this transition has rather different demographic implications. When we did extensive analyses with controls for parity, length of marriage, practice of contraception, and child loss, this pattern of a small shift in family size became even more apparent. There is little evidence in our data that Sundanese and Javanese are moving at all rapidly toward a two-child family norm. The substantial proportions of VOC respondents who desired and idealized families of three and four children (rather than five or six) may reflect a downward shift in normative preferences, but evidence to support such an interpretation is weak and there are few other surveys with which to compare our results. The behavioral evidence strongly suggests that the couples surveyed were engaging in reproductive behavior that would yield a completed family size of about four children–provided their children survived. At present in the sample areas, where, after ten years of marriage, one woman in three can expect to have lost a child, the goal of bearing three or four children provides some insurance against ending up with few or none. Research reported by T. Hull (1975) and White (1976) suggests that often couples end up with fewer, rather than more, children than they want.

When considering the policy implications of these findings, one must bear in mind additional considerations.

First, even though young respondents were slightly more likely than older ones to prefer smaller families, most of them had married at early ages (under age 18). If they have only two or three children and continue to be exposed to the risk of pregnancy, with or without protection–at the time of the survey nearly 50 percent of those exposed to risk were not using contraception–it is likely that they will have additional unplanned pregnancies. As Keyfitz (1971) has demonstrated, even with contraception the chance of additional pregnancies is quite high, especially when inefficient methods (such methods were condom and rhythm in use by over half of the 30 percent of VOC respondents who were using contraception) are adopted. Consequently there seems little chance, unless sterilization is chosen or abstinence is diligently practiced, that these young couples will actually attain their smaller families. Postpartum amenorrhea and prolonged breastfeeding may mitigate the risk somewhat but not sufficiently to yield completed fertility rates much below four or five children per woman.

Second, given the large number of couples who experienced child mortality and the lack of differentials among those who had and had not lost a child in the number preferences or values of children, it is likely that as long as infant and child mortality remains high most couples will see themselves at risk of having a child die whether they themselves have experienced a loss or not. From the evidence of the present study and of others (see Singarimbun and Manning, 1974:33) it is almost certain that both replacement and insurance effects are operating in couples' fertility planning and will continue to do so until it becomes clear in the Sundanese and Javanese cultural contexts that when children are born they are likely to survive. Substantial attention needs to be paid to the reduction of infant and child mortality before we can expect the average Sundanese or Javanese couple to have a family of fewer than three or four children. Such a change in fertility norms is likely to be a slow process. Furthermore, it is likely that if child survival does substantially improve, it will take time for couples to perceive the improved chances for child survival. During the adjustment period, which will probably last most of a generation, the number of surviving children per couple will increase, yielding larger completed families and shorter intergenerational intervals; both will tend to generate increased rather than decreased population growth rates.

A third consideration concerns the time it takes for a shift in norms to be reflected in behavior. When considering the prospects for a two-child norm it is of course critical to bear in mind the time-lag, due to the age structure of the population, before replacement-level fertility results in a stationary population size. As McDonald (1975) has shown for Indonesia, under the most reasonable assumptions (attainment of a replacement fertility level in 30 to 50 years, improvement in expectation of life at birth to about 60 to 70 years), the population of the country would reach about 400 million by the late 21st century before natural increase would cease. At least half of this number would probably be living in Java, even if efforts to resettle some of Java's population in the (relatively) less crowded outer islands were to continue. The information from the Value of Children Study reported here suggests that the attainment of replacement-level fertility is not likely to occur in the foreseeable future, even in those areas of Central Java where, as the study also shows, the use of family planning is considerably more prevalent than in Indonesia as a whole. Other reasons for caution about the achievement of a two-child norm are found in responses to questions concerning reasons for using contraception (most respondents disapproved of its use for delaying the birth of the first child) and the degree of concern about overpopulation on Java (most did not feel it to be particularly important and did not consider it a reason for having fewer children).

When these points are combined with the positive values VOC respondents attached to children for economic and psychosocial reasons, it becomes even less reasonable to expect fertility levels to drop substantially among Sundanese and Javanese for some time to come. As discussed earlier, there are numerous cultural patterns that reinforce the instrumental and psychosocial value of children in Indonesia. Children perform household maintenance tasks, feed animals (often gathering the food at some distance from the dwelling), gather firewood, and perform many other tasks required in predominantly rural, agricultural societies. Furthermore, as in many developing countries, in Indonesia children engage in petty trading and other tasks that permit adults to earn cash income by freeing them from childcare. Although the costs of rearing children may provide pressure for smaller families, it is important not to underestimate the positive values of children that favor larger family sizes. As the data reported here show, there are substantial pressures on Javanese couples to have what, in developed societies, would be considered moderate-sized families. Most Indonesians probably view such families as small, particularly given infant and child mortality levels. As we have indicated, shifts that will contribute to reduced fertility are taking place in the VOC sample areas, including shifts in reproductive norms, increased use of contraception, and strong government encouragement of family planning. These shifts must be seen in the context of Indonesian history and culture, however. Within that framework the changes are important but the values attached to children are not likely to change rapidly or in numerically substantial terms in the foreseeable future. The shifts that are taking place are important cultural changes and encouraging but for the immediate future are not of much demographic significance. Before the population of Indonesia becomes stationary there will be a substantial increase in its size, even if a shift to a two-child norm were to occur immediately. Our analysis suggests that such a shift is likely to be quite slow in coming, and therefore optimism about Indonesia's ultimate population size or the slowing of its rate of growth in the near future is not warranted.

Research implications

Additional research on the value of children in Indonesia is needed to provide information that is directly relevant to development efforts and population policy planning. Such policy-oriented research needs to be designed, implemented, analyzed, and reported in a relatively short time in order for the findings to be available for policy formulation. General considerations suggest that much of this research be done on a smaller scale than that of the present study, using village and regional study designs and combining psychosocial and anthropological methods. Although large-scale VOC studies do not seem particularly desirable, there is a need to monitor prevailing VOC norms and the effects of particular programs and policies on them. Elements of the VOC research design incorporated into smaller-scale studies can facilitate such monitoring and provide checks against the baseline data presented in this study. As always, there is the paradoxical need to use our research resources efficiently and avoid excessive duplication and yet to maintain sufficient sampling of norms, attitudes, and behaviors to know whether they are changing systematically or episodically.

The following types of research would provide information that would further our understanding of the relationship between various sociocultural patterns and demographic change in Java.

First, it would be useful to have several studies that, for various ethnic groups, combined the collection of psychosocial data on the value of children with anthropological and economic data of the type reported by White (1976). The collection of each type of data by itself makes it difficult to see clearly the relationship between children's place in a community and reactions to them by adults, parents and otherwise, in the community. Such studies would make it easier to understand empirically the instrumental and psychosocial contributions of children to the community and thereby would provide a better framework for understanding the values associated with children.

Second, it would be useful to have a series of small-scale studies that examined the relationship between child mortality and the parents' decision to attempt replacement of the lost child (Singarimbun and Hull, 1977). Such studies are particularly needed in Java, given the persistent high rates of child mortality. A related topic that may deserve even higher priority is how people perceive the community patterns of child mortality; research on this topic is needed to gain an understanding of the sociocultural meaning of child mortality and the extent to which couples, regardless of their personal experience, shape their reproductive behavior on the basis of their perceptions of community normative experience.

A third, critical topic requiring further study is the perceived and actual security (both instrumental and psychosocial) that couples associate with children. A longitudinal study of this topic would be desirable but also costly in time and money. Consequently a well conceived cross-sectional approach should be used, focusing on parents aged 45 or over, to determine what types of help they expected and were actually receiving from their children. Discrepancies between expectations and actuality would be important to document. Parents' expectations and experiences are likely to affect the degree to which social security schemes influence fertility behavior. If, as White suggests (1976:316–17), there is a considerable disparity between anticipated help and real help from children, it may be that social security schemes will have little effect on fertility patterns.

A fourth topic needing further research concerns the extent to which culture-specific conceptions of the small family are already operating. Although our questions did not probe this issue specifically, it is probable that, given prevailing levels of infant and child mortality, poverty, and community norms in Java, most Sundanese and Javanese consider a three- or four-child family to be small. It is even likely that they regard a family of fewer than three children to be undesirably small, as the chance of child loss seems high. Consequently it is of interest to understand how the concepts of small and large families relate to the family-size norms advocated by government family planning programs. To investigate this topic requires more attention to humor, marketplace gossip, and other forms of daily expression that reflect prevailing beliefs. Our data suggest that few Sundanese or Javanese would seriously consider having a two-child family. Our evidence also suggests that more attention needs to be paid to the meaning couples attach to particular numbers and combinations of children. A serious attempt to develop a two-child family norm in Indonesia requires an understanding of such issues as they relate to resistance to change and the persistence of prevailing fertility patterns.

A fifth topic concerns the lack of data on Sundanese and Javanese youths (as well as those in other ethnic groups) before they marry. The lack of information on family-size socialization is serious and needs to be redressed. Given the still relatively young ages at marriage observed in Indonesia (despite recent laws raising the minimum age at marriage to 16 for women and 19 for men, it is still relatively easy to bypass that formal rule) and the relatively long exposure to risk of pregnancy, it is desirable to see what young people are expecting in their own lives before they actually marry.

The sixth topic needing study is the relationship between media exposure and various family planning attitudes, beliefs, and behaviors. The results of our study are ambiguous. Insofar as family planning advocates rely on messages carried by the electronic media, it is desirable to know what, if any, effect the messages have. Similar questions need to be asked regarding newspapers and other print media as well. From the data collected in our study there is a slight indication that media exposure as such has little effect on family planning attitudes and practice. That impression should be checked.

In addition to the usual KAP survey data, it would be useful to have a better understanding of why people in Java are using contraceptives and how they perceive their own use of them. The observed pattern of use reported here suggests that several factors other than the desire to have small families (i.e., fewer than three children) are operative.

The eighth suggested research need is for information about child-care and nutrition patterns. The lack of such information makes it difficult to know the extent to which child and infant mortality are related to poor nutrition and disease. The high rates of mortality found in our study, combined with the Hull and Rohde (1978) findings, point to the need to determine the extent to which cultural beliefs about the care and feeding of children when they are born, when they are well, and when they are ill affect survival and mortality. Such an understanding would also help us to anticipate the possible demographic outcomes of preventive measures such as those suggested by Hull and Rohde.

Finally, it would be particularly useful for studies in Indonesia to work out a reliable indicator (or multiple indicators) for ascertaining socioeconomic status. As seen in the present study, it is difficult to select a meaningful measure, although the level of schooling seems to be a particularly strong candidate. The translation of socioeconomic status into rice equivalents seems to overstate the degree to which residents of West and Central Java are well-off, however. In addition, future studies should attempt to take careful note of land ownership and land use information, which this survey unfortunately missed. We would also note in passing the limitations of standard census categories of occupations. The lack of distinction made between various types of rural workers makes it virtually impossible to make meaningful comparisons between our type of survey and national census data. The census categories need to be culturally meaningful if they are to have statistical use for either national or international comparisons.

Other research topics are suggested by the results of the present study, but these nine seem to be the main ones that might have bearing on immediate and medium-term population and development policies.

The value of further VOC work

There can be little doubt from the findings reported here and from the parallel work cited earlier that children are highly valued in Javanese society and in other ethnic groups on the island of Java as well. Of particular interest is the confirmation that a substantial portion of the value of children has to do with the psychological and emotional satisfaction they provide, even for the poorest rural respondents. While the emotional value of children is not surprising, our finding contradicts the body of literature that has stressed the importance of the economic value of children to the virtual exclusion of social and emotional advantages and disadvantages. If family planners and development planners recognize in their policies the pervasiveness of the social and emotional values of children to Javanese couples, there may be little need for further VOC studies as such in Java or even elsewhere in Indonesia. Our findings suggest that development planning that aims primarily at the improvement of economic conditions as the means to slow population growth may be frustrated in the Indonesian cultural context. Population policies must take account of the high social value placed on children as children, regardless of their economic utility.

As indicated elsewhere in this report, one policy issue needing attention is the relatively high incidence of child mortality. Other related policy concerns pertain to health and nutrition problems faced by many Indonesian families. Parents' aspirations for their children are in need of better understanding, along with the relationship of those aspirations to family welfare and family structure. Planners and researchers may be tempted to elaborate fine differences between the values of children in one ethnic group or another, but doing so may be fairly wasteful. From the population planning and policy standpoint what is needed is not the elaboration of fine differences but the development of policy-oriented research that seeks to identify specific means by which the pervasive and persistent value of children for social and emotional, as well as economic, reasons can be changed. Although it might be desirable to collect data for each major ethnic group so that comparisons could be made, such academic refinements might simply confirm general patterns established elsewhere and contribute little to substantive policy development. As our data reveal, there are value differences between the Sundanese and Javanese that are related to education, economic status, and occupation. Differences in the ways children are valued may also be related to geographical features that determine access to health services when children are sick and at risk of dying; this possibility needs to be examined systematically. Throughout the Indonesian archipelago there are almost certainly even more variations to be found.

However, resources in the form of money, time, trained personnel, and institutional support are not sufficient to devote large projects to continuing VOC studies simply for academic reasons. Particularly in light of the time frame implied by McDonald's analysis of Indonesia's population growth potential, the selection of topics for future study should be carefully monitored.

First, as previously indicated, it would be desirable to collect data for several limited-scope, village-level studies of other major ethnic groups simply to gather empirical evidence about the extent to which they share the values of the two most populous groups found in this study. Such studies would need to have a common core set of survey questions. Some VOC information has been collected in community studies, but there is little information from the outer islands and much of the existing data focuses almost exclusively on Javanese communities. Though population pressures are less severe outside Java and Bali, the problem of rapid population growth and pressure on resources is a national one requiring a unified—and prompt—response. Small, village-level studies can be done relatively quickly, on small budgets, with the resources of regional universities; and with careful supervision they could be used as training exercises for students. Furthermore, if properly managed and coordinated, such studies could provide data suitable for basic comparative analyses—as was the case with the present study. They would also provide baseline data that could be referred to for evidence of change in values ascribed to children. Presumably they would provide convergent evidence of the extent to which programs focusing solely on economic values are unlikely to affect fertility significantly.

Second, future studies that seek to understand the value of children in its fullest sense should combine the essentials of White's (1976) community study techniques with the psychosocial approach in order to gain a more balanced picture of what children actually do and how they are seen by their parents. Despite the disadvantages of self-report data, the fact remains that, whether collected through anthropological techniques (which are often statistically unrepresentative) or through psychosocial techniques (which may be insufficiently sensitive to cultural nuances), such data provide our primary body of knowledge of how people live their daily lives—how they think, feel, and share their main concerns, joys, and worries. Many of these thoughts and feelings concern the benefits and problems associated with children, and in the study of fertility these main sources of data cannot be ignored. The tendency of some authors to discount psychosocial data because such data point to uncomfortable social truths does not make the truths go away; in the present study the evidence indicates that a high value is placed on children in a setting where child mortality is common and that there is a desire for families considered to be small in that setting but whose numbers lead to rapid demographic growth.

We need to know more about family-size socialization patterns through research of the kind done by Palmore (1974) and Kee (1980). Such information is seldom available in countries of the Third World, and Indonesia is no exception. Given the youthful age structure of their populations, young ages at marriage, and the rapid growth, it is inappropriate to continue using currently married women as the main source of data. Although surveys of young people entail difficulties (e.g., the problem of interviewing unmarried girls in Islamic societies), information about their values and attitudes toward children is urgently needed. Intervention policies should be geared to the 47 percent of the Indonesian population under age 15, who are the parents of the next 20 years, as well as to reproducing adults. It would be useful to have information about the value of children as it is represented in story, gossip, drama (e.g., puppet plays), and the media. It would also be useful to know specifically how impoverished groups cope with their day-to-day nutritional, shelter, health, and energy needs as these needs bear directly on the well-being of children and indirectly on fertility. What are the priorities in the allocation of food to children? Is there any sex preference of the kind Scrimshaw (1978) suggests, with consequent selective child loss? Are children selectively cared for when ill on the basis of either age or sex? What beliefs are associated with such decisions if they are indeed made?

A related type of research concerns perceptions of short- and medium-term futures. What do people see in store for themselves and their children in the days, weeks, months, and years to come and how do they perceive population and development programs as affecting the outcomes? To what extent do they believe that the effects of such programs are beneficial to them? How are their perceptions related to status and education? Program effects on land tenure and the value of children also need to be better understood—for example, effects on inheritance, security, and family strain—for they may contribute to pressures to change fertility behavior.

There is a paucity of data on major cultural groups other than Javanese and Balinese. The anthropological evidence has been quite unevenly collected. This imbalance needs to be redressed so that we can learn more fully the extent to which cultural patterns and beliefs associated with children differ from ethnic group to ethnic group. For instance, do Sundanese have a less positive view of children than Javanese and, if so, how might it be related to their relative lack of worry about children's health as found in this survey?

Though it may be seen as having low priority, it would be useful to collect value-of-children data on migrants to determine whether migration generates a perceived need for larger families. Such research can be done as part of other studies that compare migrants with control groups from the same villages or regions, and it would have both theoretical importance and policy relevance for Indonesian planners.

Another topic needing further investigation is the extent to which parents misperceive the productive ages of children or devalue the contributions of children to the household economy. White stated (1976: 274–6) that most Javanese parents overestimated the ages at which their children began to make substantive contributions to the household. Singarimbun (1971:251) has pointed out that early socialization of children in some household maintenance activities is initially seen as play by the parents but as productive by outside (especially economically oriented) observers. This observation points to a general need for researchers to have more thorough understanding of the concepts and categories used by the people they study.

Finally, several issues related to the value of children need to be studied in a broader framework of development and population policy. For instance, it would be desirable to know how policy-makers perceive children, people, and the labor force and how they relate these perceptions to population and development policy. This would entail a study of the degree to which politicians and researchers themselves understand the cultural and resource constraints facing a rapidly changing society like Indonesia. Recent discussions within Indonesia indicate discrepancies between the views of policy-makers and those of the society they are seeking to change. As numerous examples from the developed and developing world demonstrate, policies that ignore or belittle cultural values, beliefs (especially religious beliefs), and daily human experience ultimately lead to social disruption and even revolution. In Indonesia the persistent and pervasive economic, sociocultural, and psychological values attached to children are likely to play an important role in the success or failure of development and population programs for decades to come.

Policy recommendations

The following observations and policy recommendations are set forth with the usual caveats about the limitations of the sample and data. Within that framework we have identified nine basic issues affecting demographic and development policy.

1. Javanese and Sundanese value children for a variety of reasons. The values attached to children by the two groups are not identical but do have common components. For family planning the major implication is that the number of children desired and being produced ranges from three to five; virtually no one in either group wanted smaller families. Family planners need to take this finding into account in attempting to create a two-child family norm. It is likely to take a long time to create such a norm and to require several fundamental changes in Indonesian society.

2. One major change likely to be required is a sharp reduction of infant and child mortality. Though this need has been voiced by others (e.g., Hull and Rohde, 1978), it is worth noting again. Initially the

effect of reducing mortality will probably be larger families, not smaller. It will take time for communities to perceive the improved chances of child survival, and this delayed perception will add to the lag effect of reduced mortality on fertility change.

3. Associated with the reduction in child mortality are the nutritional circumstances of Indonesian families, a matter that requires research involving the disciplines of public health, anthropology, psychology, and agriculture. Nutritional studies in turn have implications for medical training programs (i.e., emphasis on community medicine rather than on Western-style advanced medical technology) and intervention programs (e.g., attempts to change traditional infant feeding patterns).

4. The general sanitary and health conditions of most Indonesians need to be improved before there can be substantial improvement in child and adult mortality. Successful policies will almost certainly incorporate strategies called "development from below." Local groups need to be actively, not passively, involved in the planning, implementation, and monitoring of development programs, especially self-help programs intended to suit local needs. The success of such programs will probably hinge to a significant degree on their ability to put underemployed and unemployed individuals to work.

5. It is likely that parents in Java, particularly in rural areas, will continue for some time to see children as sources of security in old age. Social security programs provide only economic security; and as the VOC data demonstrate, the security children provide to Javanese parents is social and emotional, as well as financial. A pattern of development is needed that does not weaken community and familial networks. This issue may have implications for transmigration programs.

6. Prevailing child mortality levels suggest there is a need for a mobile paramedical corps that will go to the people rather than wait for them to come to its clinics. Mortality patterns may also indicate areas in need of drug regulation. The availability of nonprescription drugs of all kinds (e.g., antibiotics) may have more negative than positive medical consequences. Greater control over the use of food additives having demonstrated adverse side effects (e.g., monosodium glutamate) may also be indicated, particularly for young children.

7. Education of the public about the effects of rapid population growth needs to be given more priority, especially in Java. McDonald's

(1975) analysis of Indonesia's age structure indicates continued rapid growth of the population is inevitable for several decades. Such growth could cause considerable human hardship in Java, beyond what is already experienced by many rural and urban-fringe people. Inasmuch as VOC respondents betrayed little awareness of the population growth rate or its implications, much more public education is indicated, through whatever media might prove useful, from traditional *wayang* (puppet) plays to television programs viewed on the community set at the market place. Educational efforts should be sensitive to Indonesians' perceptions of the world around them. Probably most people in rural Java have a limited range of experiences and no appreciation of the demographic, economic, and social implications of continued high fertility—that is, of families of four, five, and six children. It is necessary for the government and aid programs to deal with the reality of the Indonesian situation as it is today rather than as they hope it might someday be; and to develop policies attuned to this reality requires courageous political and social leadership that is attentive to the needs of people affected by the policies.

8. Economic and employment policy-makers should be aware that Indonesians (or Javanese, at any rate) do not view children simply as economic assets and that narrowly economic incentives or disincentives will fail to reduce fertility significantly. Several positive programs have already been implied—maternal and child health efforts, stabilization of food supplies, for example; others include the education of the population to a minimum literacy level and the provision of readily available surgical contraception for those who want it. Less attractive policies may have to include childbearing disincentives that may pose risks to political stability.

9. The development of a comprehensive, yet sensitive, population policy will require further information on issues relating to the value of children, fertility, mortality, and family planning experience. For the foreseeable future (10–20 years) it is probably desirable to have an organization in Indonesia, formal or otherwise, that can coordinate population research needed for policy and program development. Ideally, such a body would coordinate outside and national funding; assess community and national priorities; evaluate proposals, analysis, and reporting systems; and conduct training programs. Its activities would have to be safeguarded against personal or political whim. At present the lack of a coordinating organization wastes scarce resources

and may be causing much information to be collected that is not particularly useful for development and population planning. Advancement of demographic and social-psychological academic theory must take second priority to solutions to the immediate problems faced by Indonesia. Indonesia may wish to adopt a strategy requiring evidence from researchers, internal and external, that proposed research will directly benefit Indonesians. Currently a considerable amount of research would not meet such a criterion. The difficulty of establishing this type of assessment process is that the group conducting the assessment needs to be protected from overt political control, pressures from various commercial or academic vested interests, or efforts to prevent it from putting forward difficult or unpopular issues. Policies formulated as though children were mainly or solely economic assets fall in this category.

The development of research such as that reported and proposed here may help us to understand the dynamics of high fertility in Indonesia and its probable persistence. Only with such understanding can we develop programs that provide maximum benefit to the society, to couples faced with reproductive decisions, and to the children who are valued in a multiplicity of ways by Indonesians. The children of the present generation must eventually grapple with the urgent problems and rapid change facing the country; their task will be easier if the problems are faced squarely today. The Indonesia that they inherit and pass on to their children will, we hope, represent a unity of social experience without the abject living conditions that face so many in Java today.

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Filipinos on Oahu, Hawaii

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ABSTRACT Based upon an analysis of data gathered from the 1975 Office of Economic Opportunity (OEO) Census Update Survey of Oahu, this paper examines the extent to which all Filipinos as well as subgroups within the Filipino community have adapted to the host society (as measured by income and occupational status). Comparative data on income, occupation, education, and demographic status are reported at two levels. First, the Filipino community as a whole is compared with other ethnic groups on Oahu. Second, cross-sectional comparisons of subgroups within the community, delineated according to place of residence, place of birth, and recency of migration, are presented.

The evidence confirms the common view that Filipinos as a group occupy the lower strata of Oahu's social and economic life, reflecting the slower pace at which adaptation among Filipinos has occurred. Within the Filipino community, socioeconomic disparities clearly exist between Oahu-born and immigrants. Among the foreign-born, similar differentials are found between migrants of the early decades of the century and those who came in more recent years. Explanations for such disparities and varying levels of adaptation are offered.

Migration has historically been a common response of Filipinos to various social and economic problems. Areas of out-migration in the Philippines have been characterized by high population densities, imbalance of land ownership, low agricultural productivity, frequent calamities and disasters, and high rates of unemployment and underemployment (INTERMET/IDRC, 1974: chaps. 3, 4). Most of the migratory movements have been internal, although significantly long-distance in character, and generally to places of greater opportunity within the Philippines. The prevalence of such moves can easily be seen: In 1970, every seventh Filipino in the country had changed residence since birth, and the majority of those had moved across regional boundaries (see Flieger, 1976). Others, however, had moved across the borders of their nation to other countries.

The State of Hawaii, in this regard, has been one of the most important destinations of Filipino international migrants (Smith, 1976). Indeed, the migration of Filipinos to Hawaii is an active phenomenon that continues a pattern which started with the recruitment of sugar